

3/24/2023 11:50:01 AM

24-Mar-23
11:50:04

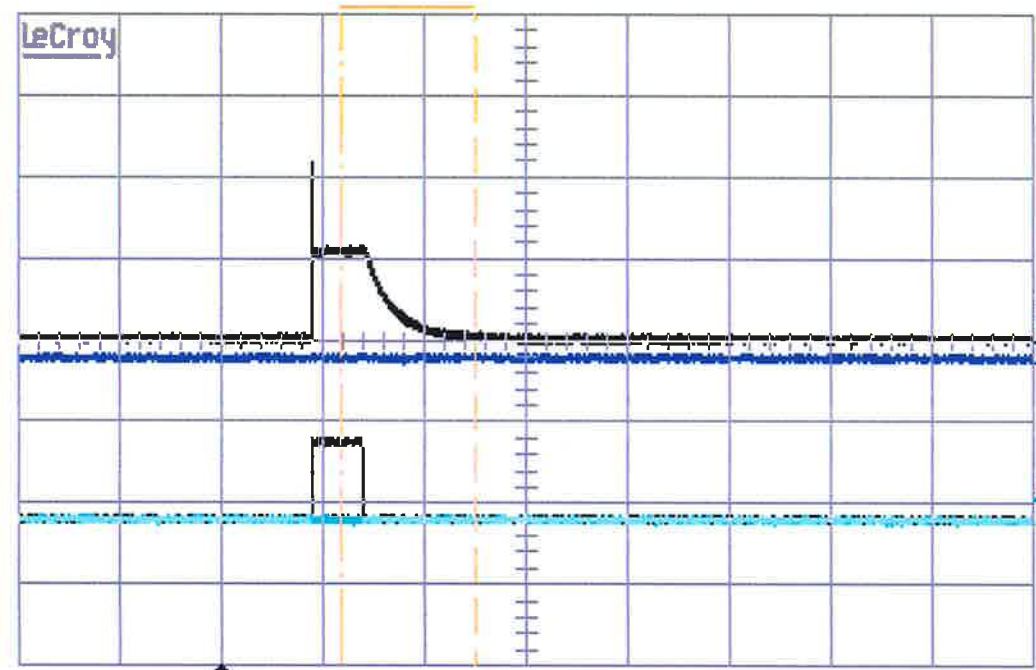
1
1 ms
50 mV

3
1 ms
5.0 V

4
1 ms
200 mV

2
1 ms
2.00 V

1 ms
1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



174 sweeps:

	average	low	high	sigma
rms(1)	29.26mV	29.18	29.34	0.04
rms(2)	43mV	42	45	0
rms(3)	1.969 V	1.963	1.983	0.004
rms(4)	4.3mV	4.2	4.5	0.0
phase(1,3)	- - -	- - -	- - -	- - -



Ext10 DC 0.75 V 50Ω

TRIGGER SETUP

Edge SMART

trigger on
1 2 3 4 Ext
Ext10 Line

cplg Ext10
DC AC
LFREJ HFREJ

slope Ext10
Pos Neg
Window

External
Atten x1
DC50Ω DC1MΩ

holdoff
- - -
OFF Time Evts

10 MS/s

☐ NORMAL

24-Mar-23

11:50:20

1
1 ms
0.50 V

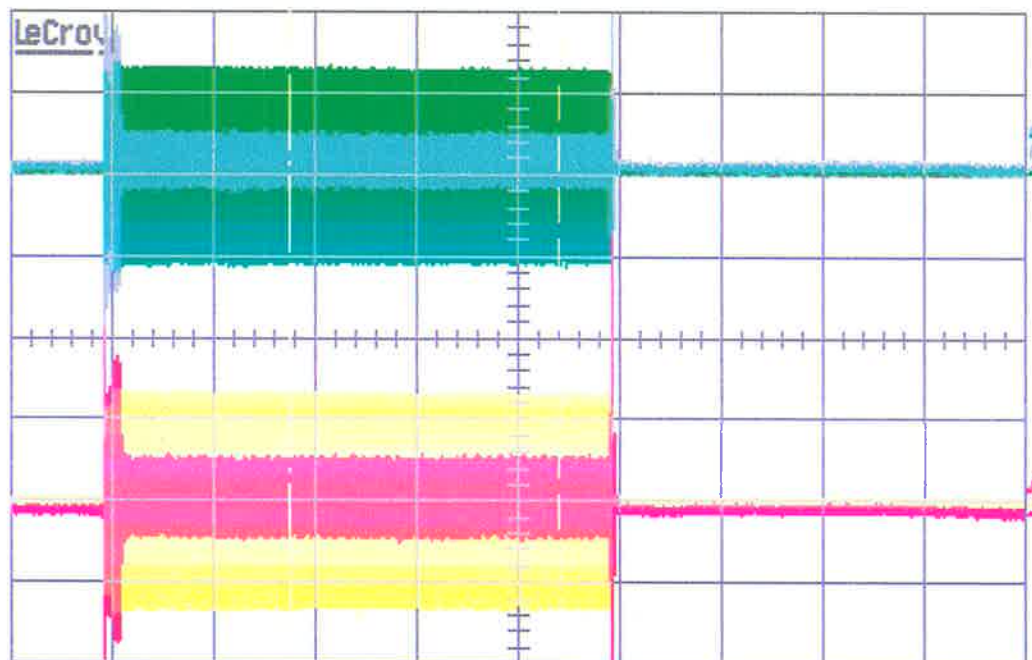
2
1 ms
100 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



176 sweeps:

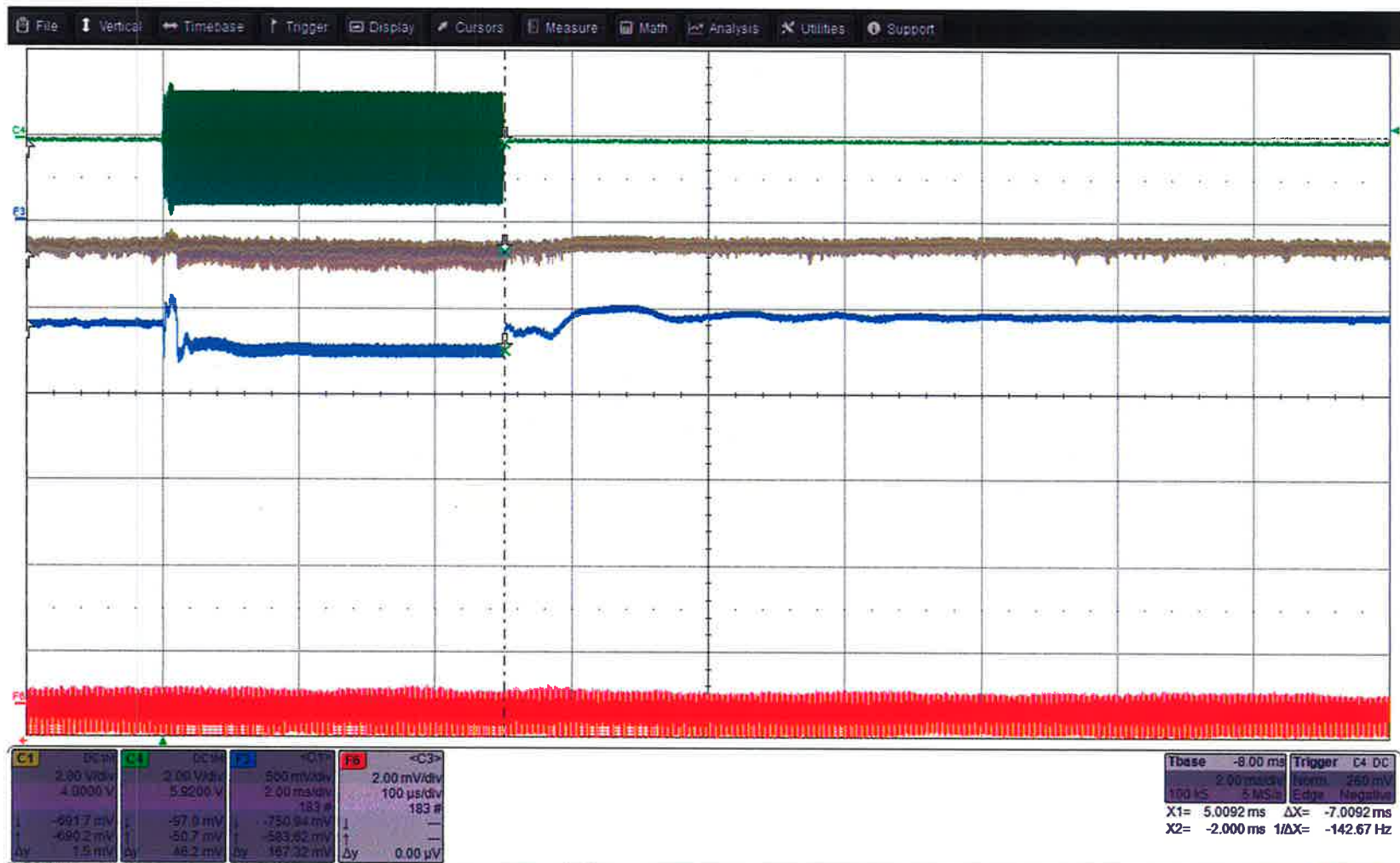
	average	low	high	sigma
rms(1)	414.6mV	411.7	416.2	1.3
rms(2)	22.9mV	22.3	23.5	0.3
rms(3)	449.3mV	446.9	450.6	1.2
rms(4)	35.4mV	34.8	36.0	0.3
ampl(3)	1.262 V	1.246	1.273	0.007



Ext DC 470mV 1MΩ

10 MS/s

☐ NORMAL



Print Now

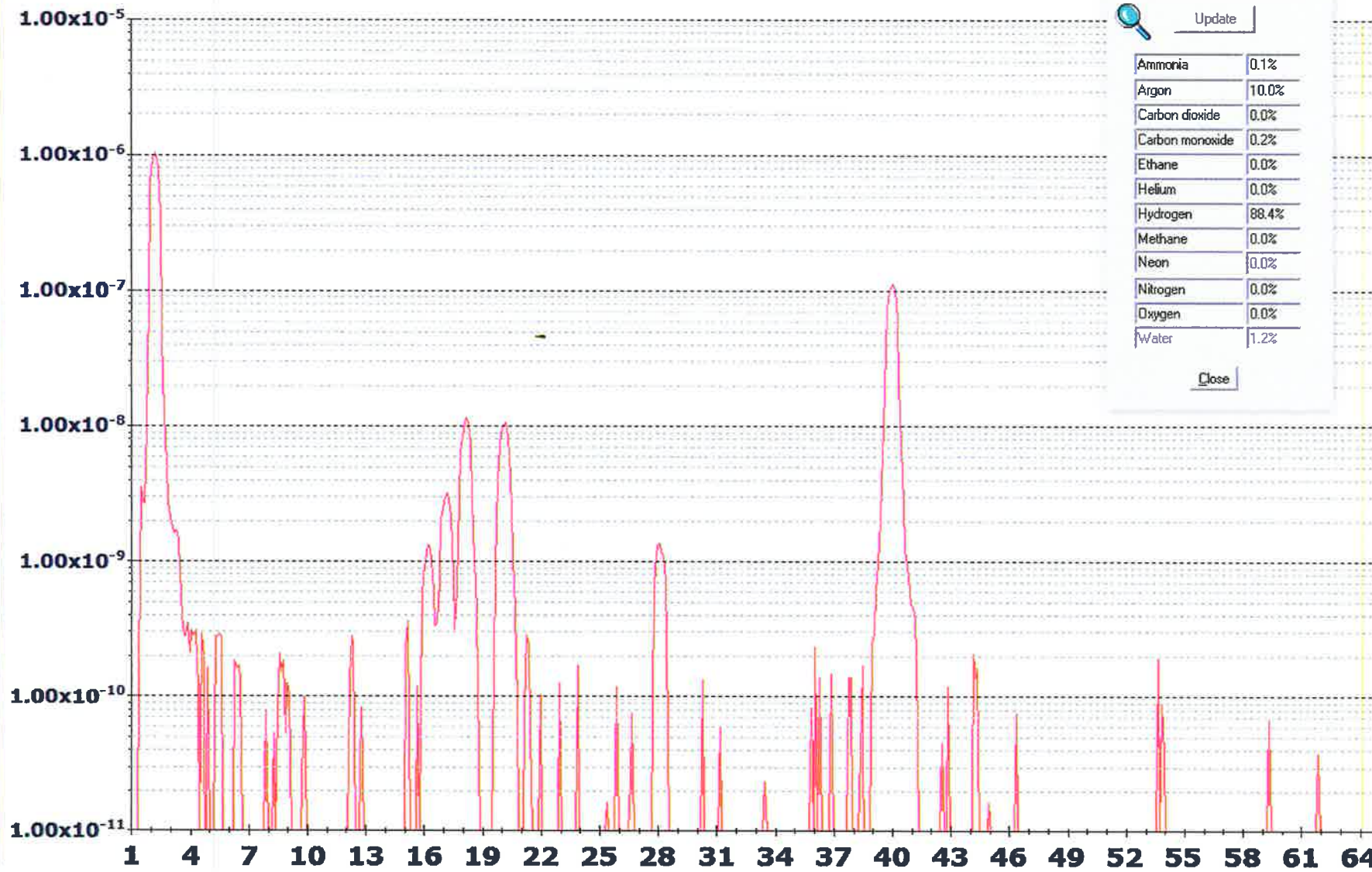
3/24/2023 11:51:25 AM

PFRC FEC RGA Analog Scan

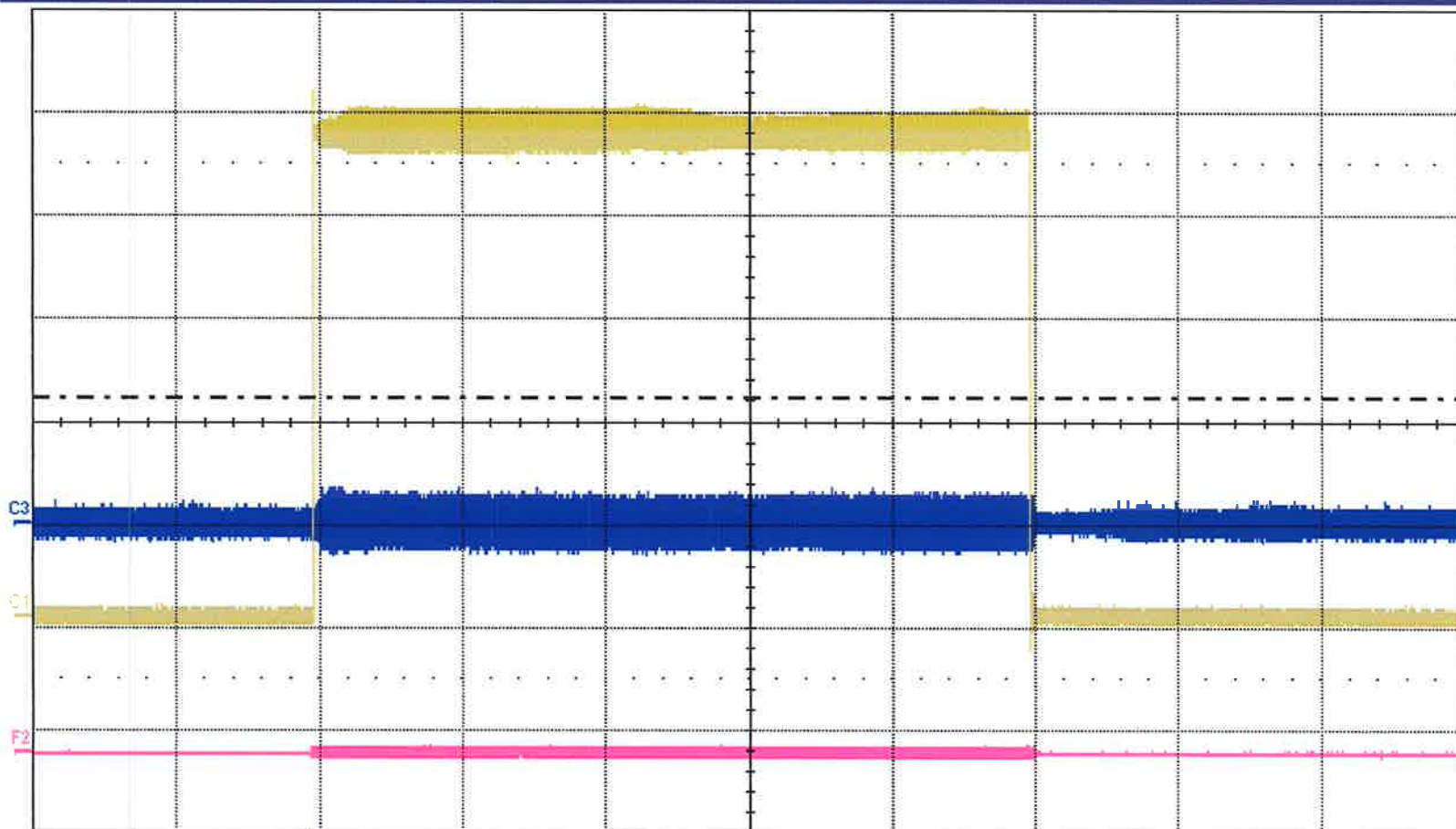
Log every scan: 505/1000

Mar 24, 2023 12:02:10 PM

Torr



File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



SLOW
PULSES

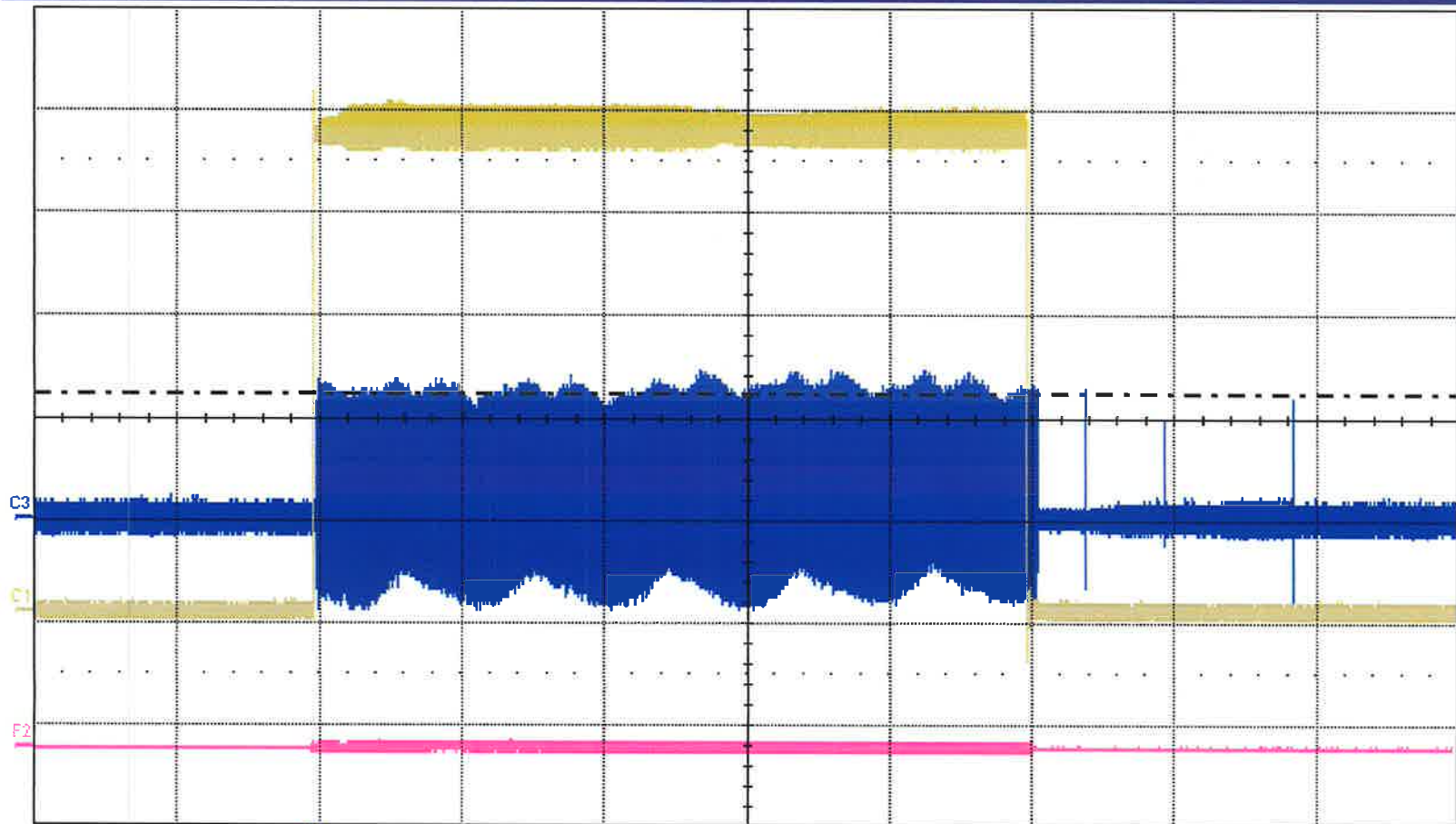
C1	DC1M	C3	DC1M	F2	<C3>
1.00 V/div	100 mV/div	97 mV/div	1.00 V/div	1.00 ms/div	378 #
-1.890 V ofst	-99.0 mV				
2.13 V	123 mV	335.8 mV			

Tbase	-3.04 ms	Trigger	C1 DC
1.00 ms/div	Normal	980 mV	
1.00 MS	100 MS/s	Edge	Positive

TELEDYNE LECROY

3/24/2023 12:06:18 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



C1	DC1M	C3	DC1M	F2	<C3>
1.00 V/div	100 mV/div	97 mV/div	1.00 V/div	1.00 ms/div	352 #
-1.890 V ofst	-99.0 mV	335.8 mV	1.00 V/div	1.00 ms/div	352 #
2.13 V	123 mV	335.8 mV	1.00 V/div	1.00 ms/div	352 #

TELEDYNE LECROY

Tbase	-3.04 ms	Trigger	C1 DC
1.00 ms/div	1.00 ms/div	Normal	980 mV
1.00 MS	100 MS/s	Edge	Positive

3/24/2023 12:05:50 PM

24-Mar-23
12:12:18

1
1 ms
0.50 V

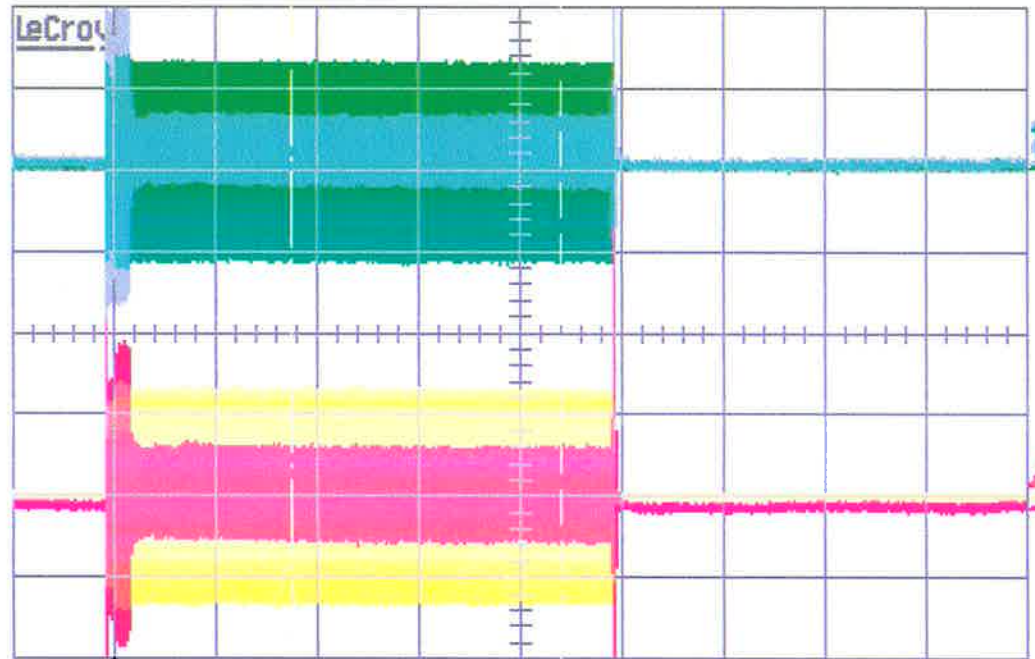
2
1 ms
100mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



121 sweeps: average low high sigma
rms(1) 421.7mV 419.2 423.0 1.2
rms(2) 32.0mV 31.4 32.5 0.2
rms(3) 446.5mV 443.9 447.7 1.1
rms(4) 37.6mV 37.1 38.2 0.2
ampl(3) 1.252 V 1.237 1.266 0.005



Ext DC 470mV 1MΩ

10 MS/s

☐ NORMAL

24-Mar-23
12:12:08

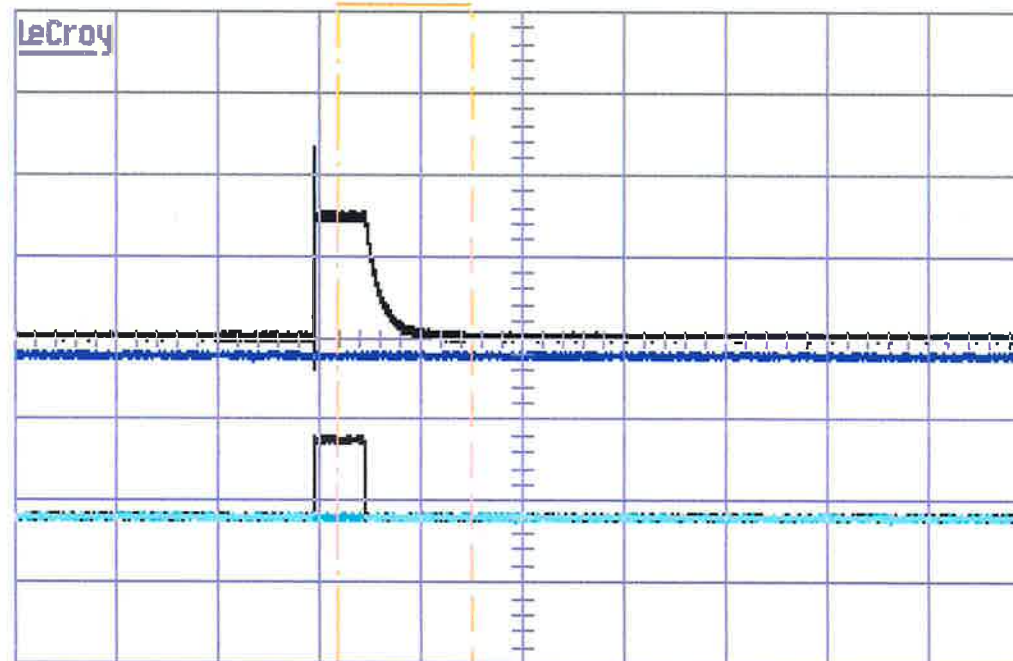
1
2 ms
50mV

3
2 ms
5.0 V

4
2 ms
200mV

2
2 ms
2.00 V

2 ms
1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



126 sweeps:

	average	low	high	sigma
rms(1)	38.57mV	38.50	38.64	0.03
rms(2)	43mV	42	44	0
rms(3)	2.172 V	2.166	2.179	0.002
rms(4)	4.5mV	4.4	4.6	0.0
phase(1,3)	- - -	- - -	- - -	- - -



Ext10 DC 0.75 V 50Ω

TRIGGER SETUP

Edge SMART

trigger on
1 2 3 4 Ext
Ext10 Line

cplg Ext10
DC AC
LFREJ HFREJ

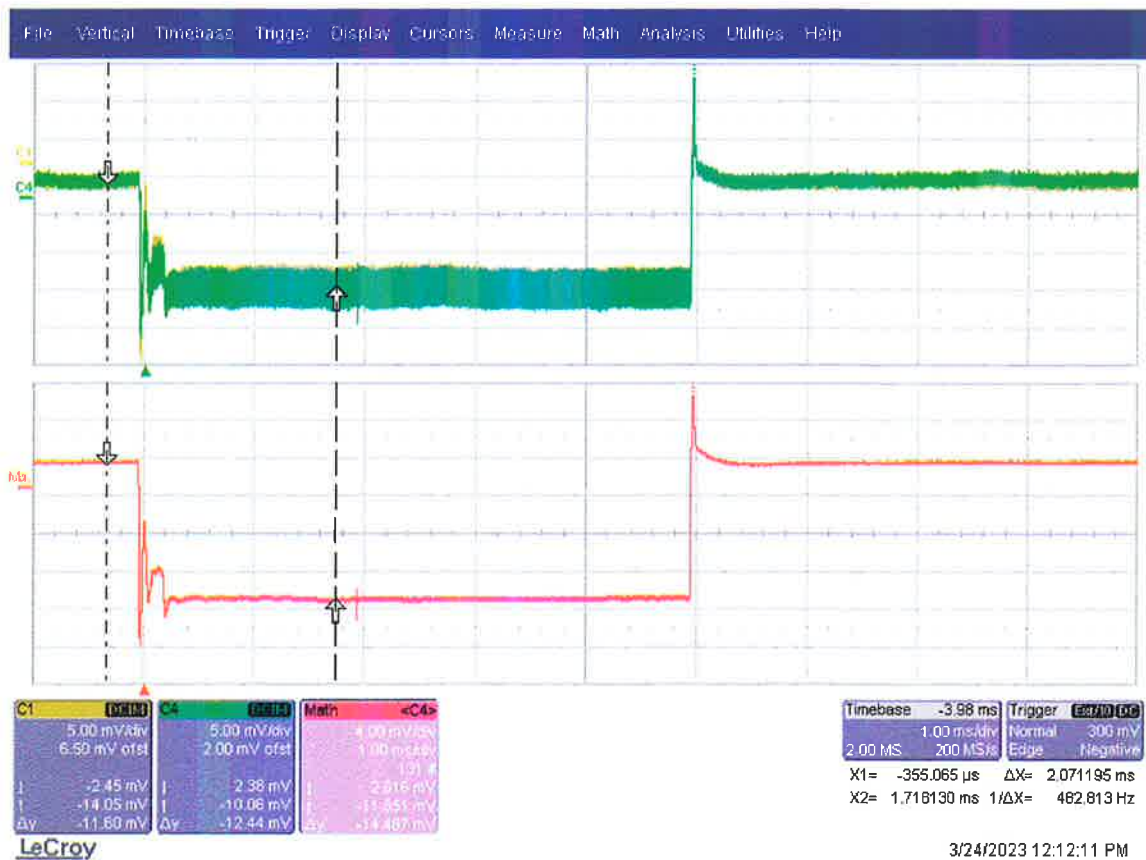
slope Ext10
Pos Neg
Window

External
Atten x1
DC50Ω DC1MΩ

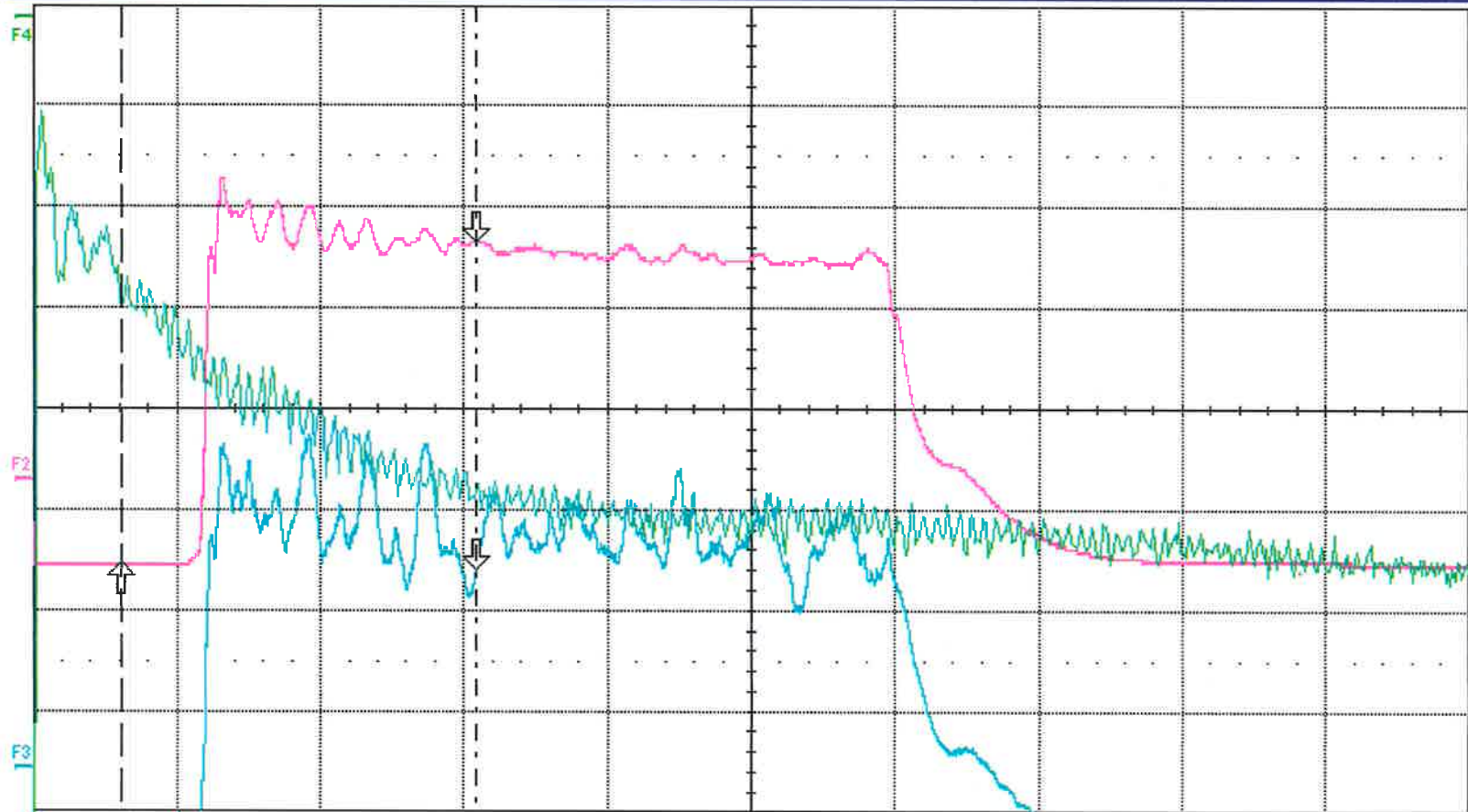
holdoff
- - -
OFF Time Evts

5 MS/s

☐ NORMAL



3/24/2023 12:12:11 PM



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
33 #			33 #
↓ 4.766605	↓ 3.9722	↓ 3.9722	---
↑ -1.651748	↑ -1.6956	↑ -1.6956	---
Δy -6.418353	Δy -5.6679	Δy -5.6679	---

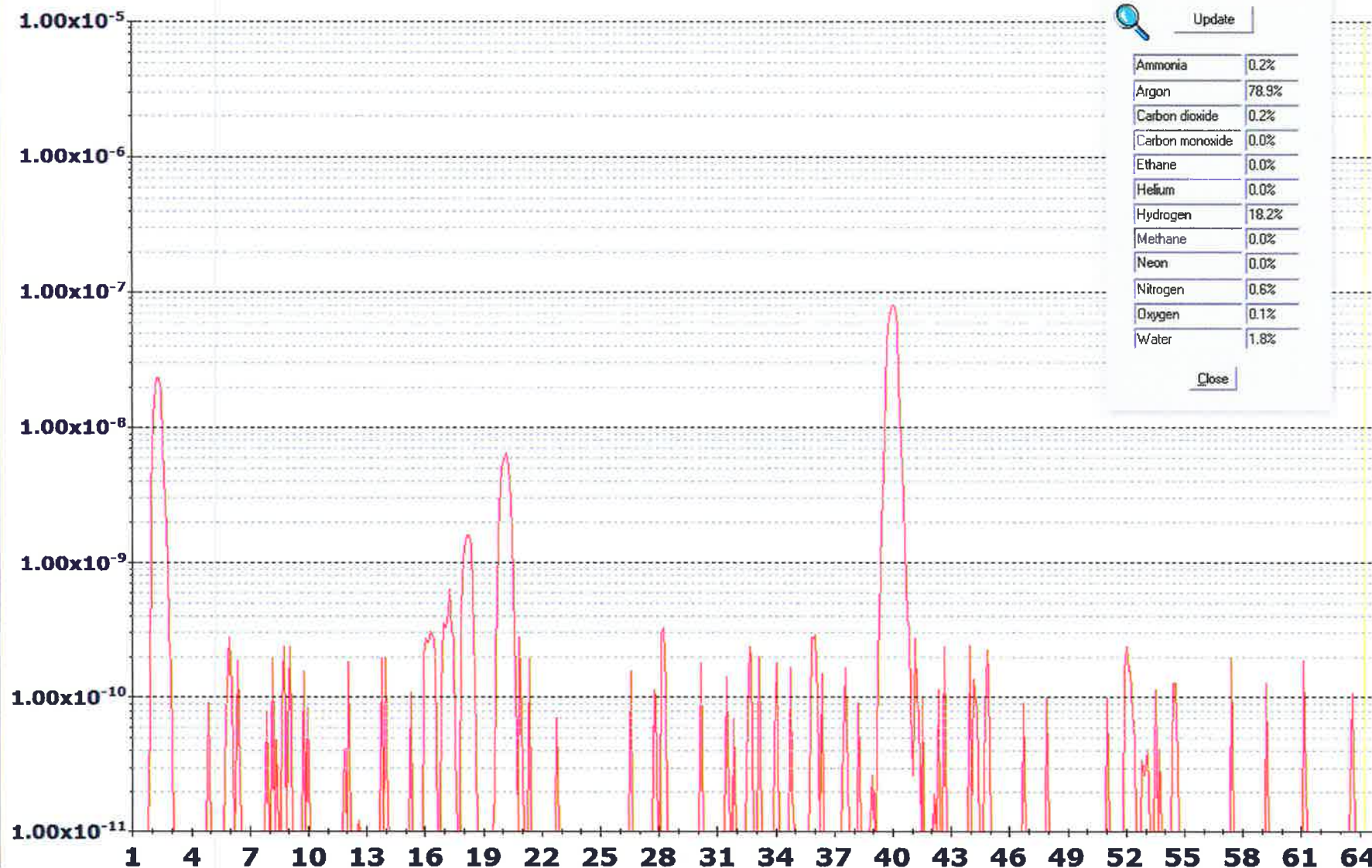
Tbase	-3.98 ms	Trigger Ext/10 DC
	1.00 ms/div	Normal 130 mV
50.0 kS	5.0 MS/s	Edge Negative
X1= 2.0852 ms	ΔX= -2.4644 ms	
X2= -399.2 μs	1/ΔX= -405.78 Hz	

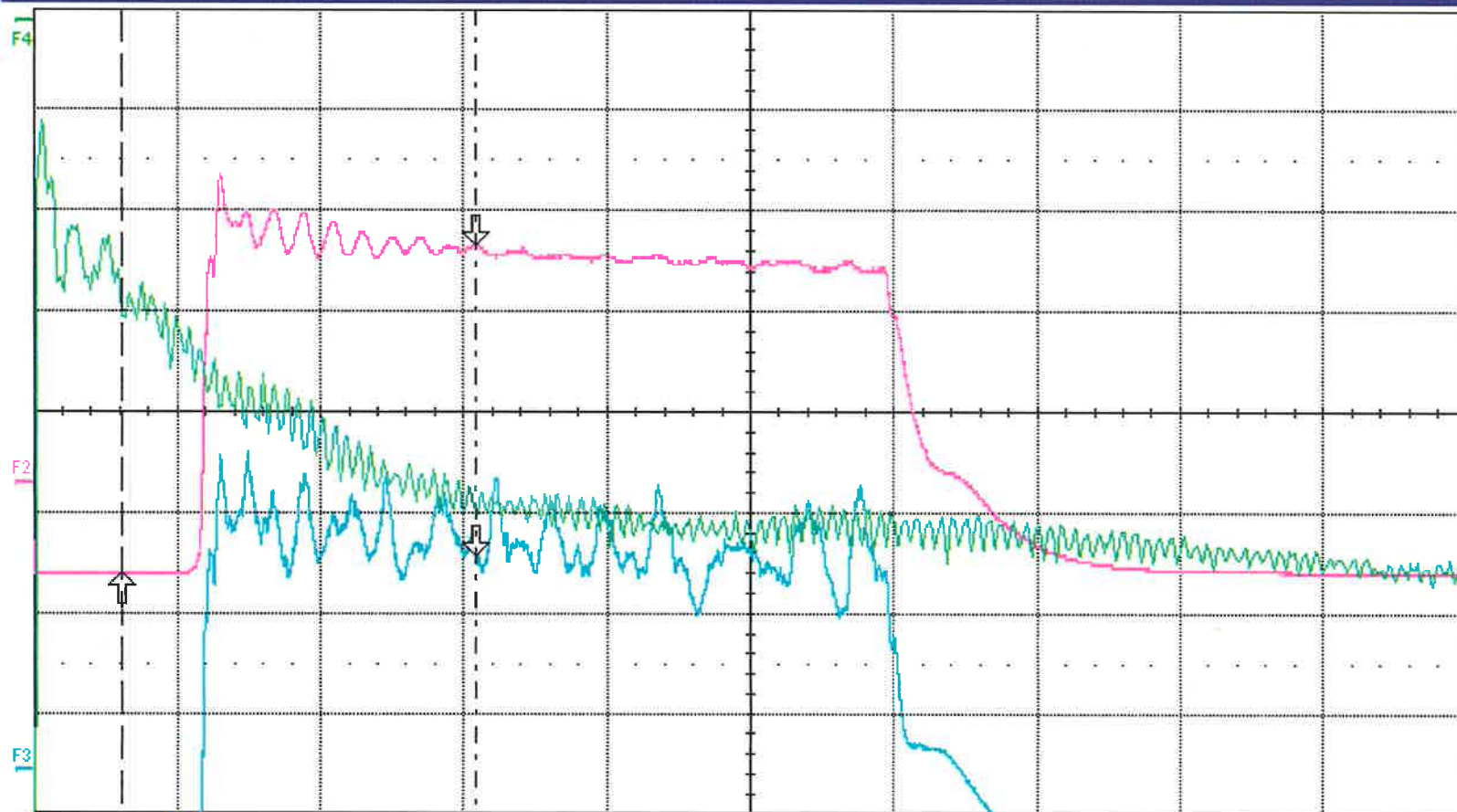
PFRC FEC RGA Analog Scan

Log every scan: 577/1000

Mar 24, 2023 12:13:38 PM

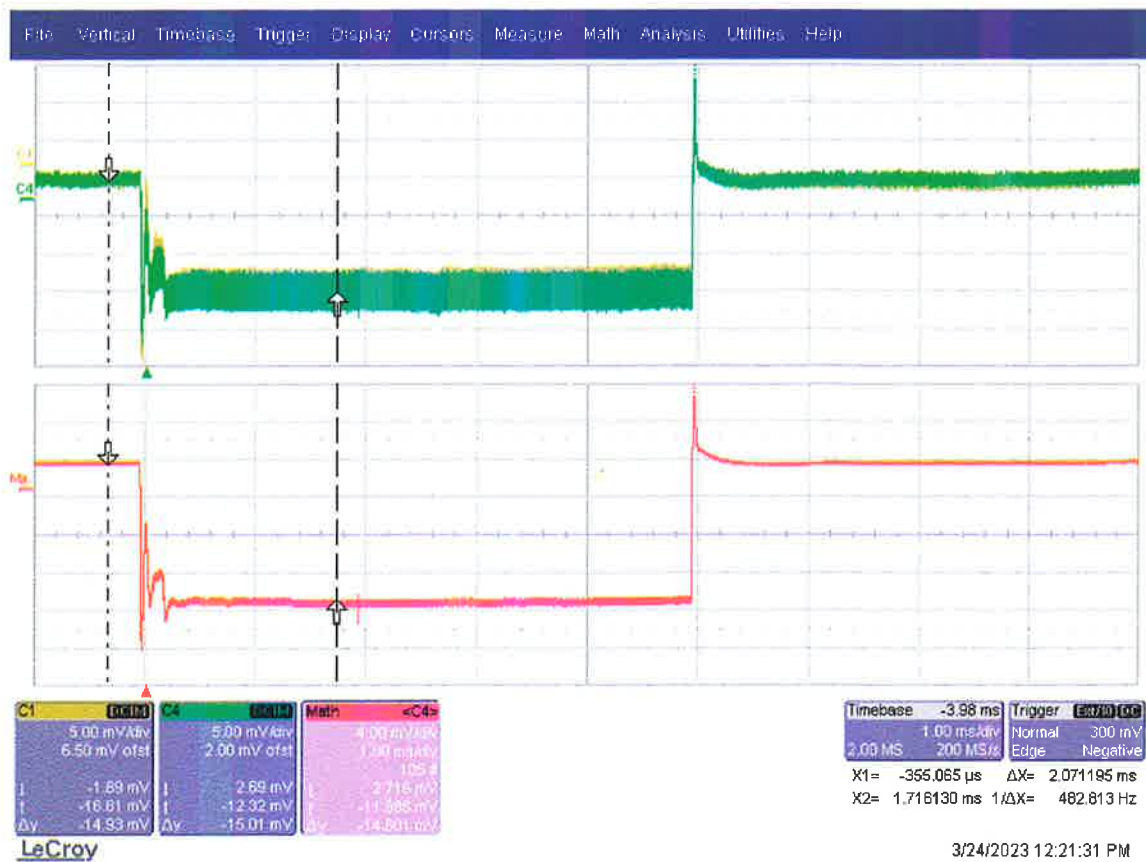
Torr





F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
100 #			100 #
↓ 4.747626	↓ 4.2955	↓ 4.2955	---
↑ -1.797477	↑ -1.7848	↑ -1.7848	---
Δy -6.535102	Δy -6.0803	Δy -6.0803	---

Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	2.0852 ms	ΔX=	-2.4644 ms
X2=	-399.2 μs	1/ΔX=	-405.78 Hz



3/24/2023 12:21:31 PM

24-Mar-23
12:21:34

1
1 ms
50mV

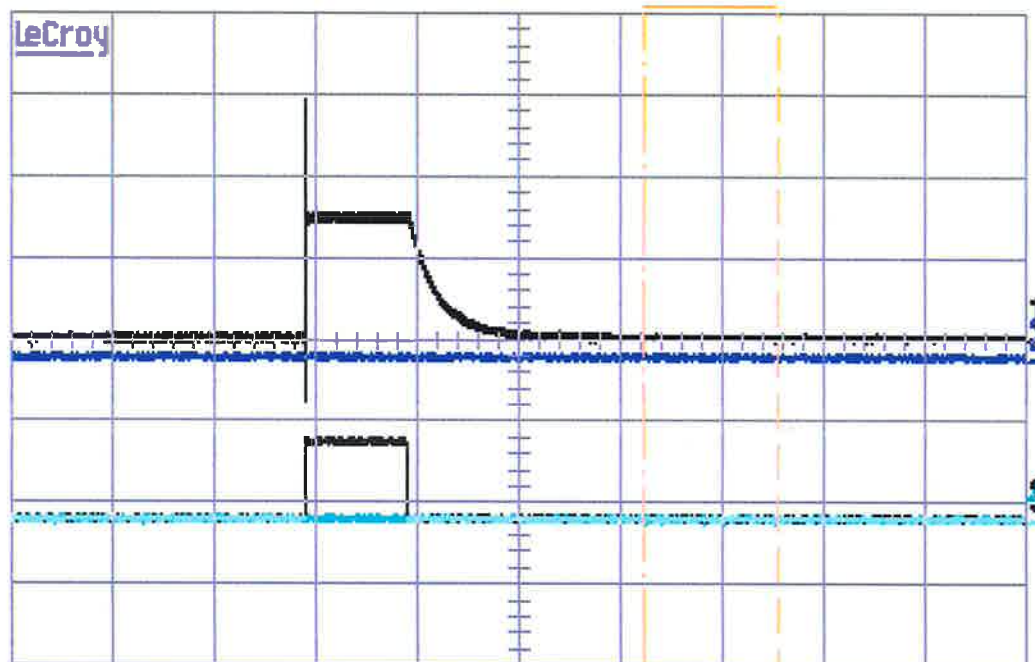
3
1 ms
5.0 V

4
1 ms
200mV

2
1 ms
2.00 V

1 ms

1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



97 sweeps:

	average	low	high	sigma
rms(1)	1.05mV	0.99	1.10	0.03
rms(2)	43mV	43	44	0
rms(3)	90mV	87	91	1
rms(4)	4.4mV	4.2	4.5	0.1
phase(1,3)	- - -	- - -	- - -	- - -

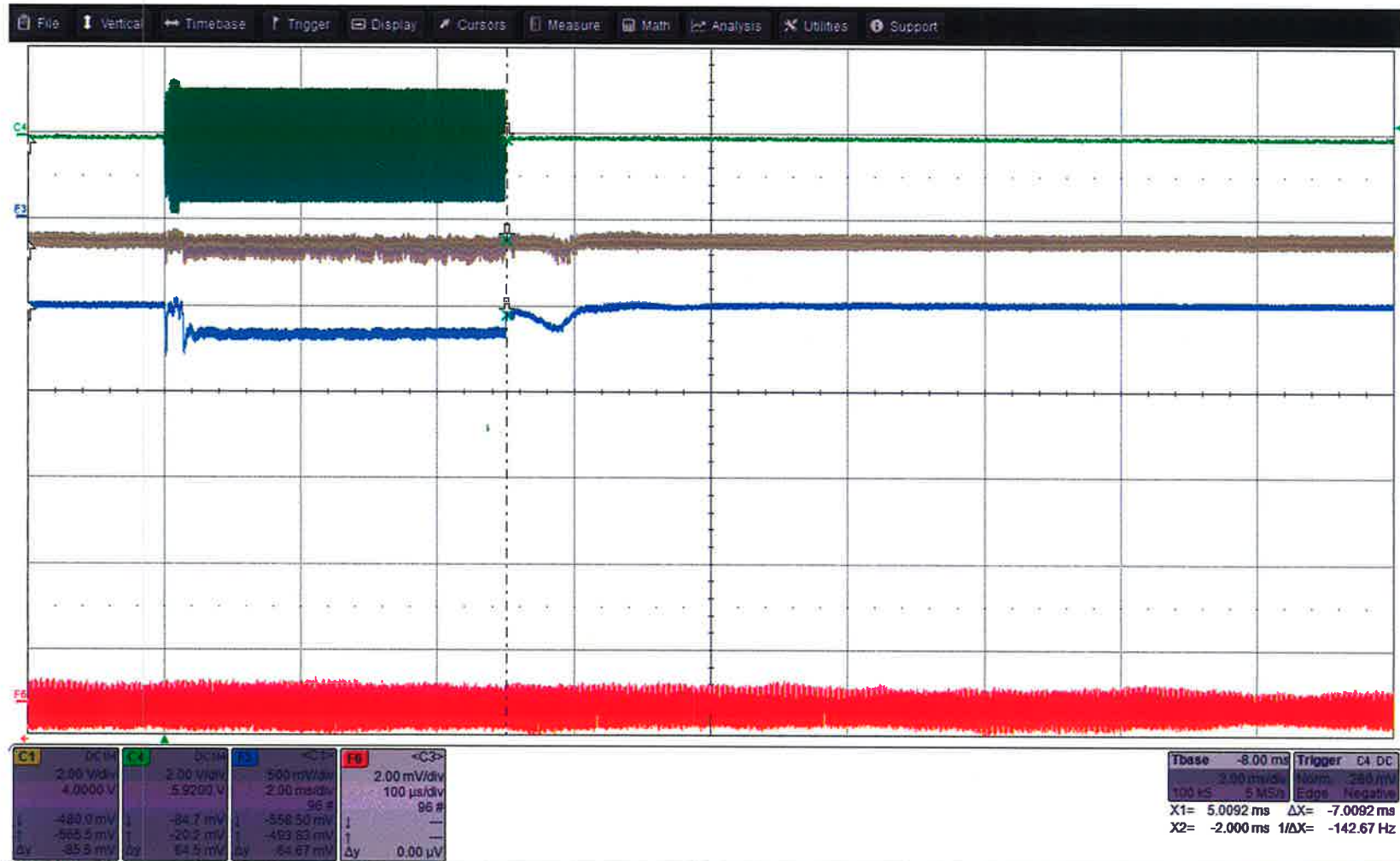


Ext10 DC 7.5 kV 50Ω

10 MS/s



NORMAL



Print Now

3/24/2023 12:21:41 PM

24-Mar-23
12:21:49

1
1 ms
0.50 V

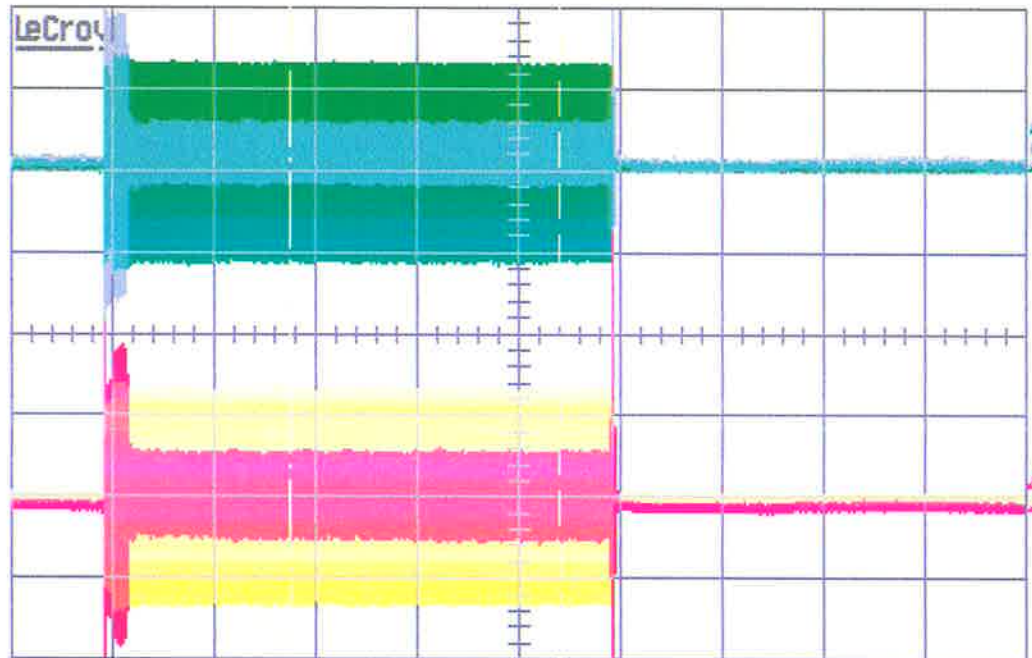
2
1 ms
100 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



98 sweeps:

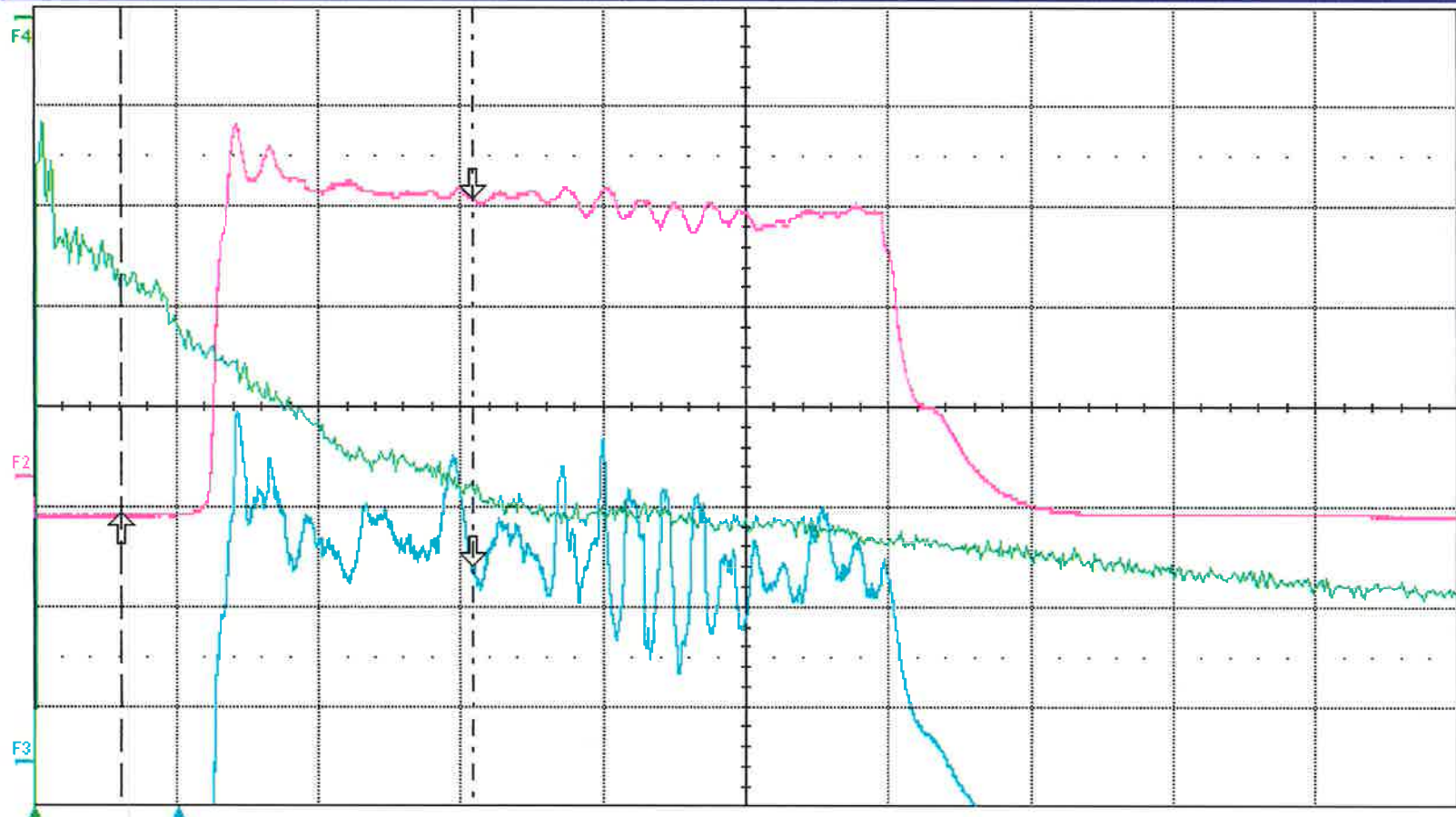
	average	low	high	sigma
rms(1)	421.3 mV	419.0	422.5	1.0
rms(2)	27.6 mV	26.9	28.3	0.4
rms(3)	447.7 mV	446.0	448.9	0.9
rms(4)	34.8 mV	34.3	35.4	0.2
ampl(3)	1.255 V	1.246	1.267	0.006



Ext DC 470 mV 1 MΩ

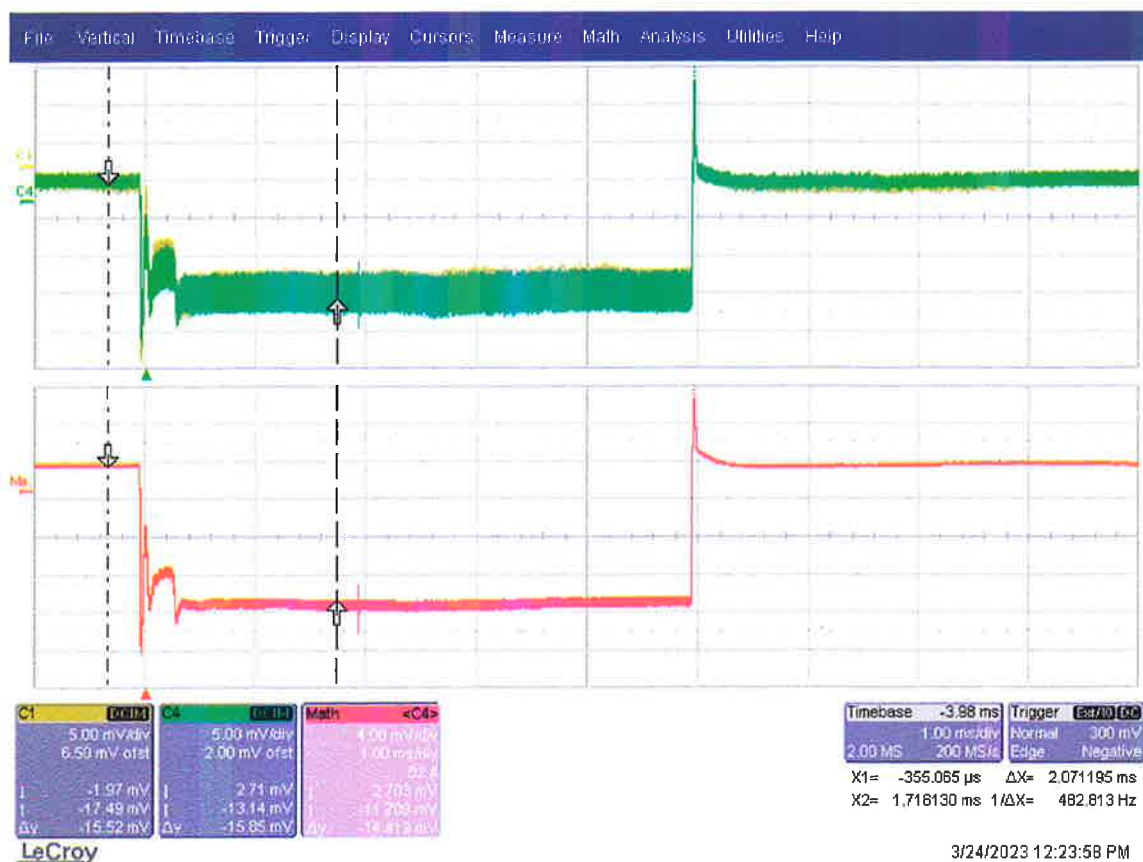
10 MS/s

☐ NORMAL



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
82 #			82 #
L 5.616634	L 3.9642	L ---	L ---
H -737.881e-3	H -1.9079	H ---	H ---
Δy -6.354514	Δy -5.8721	Δy ---	Δy ---

Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	2.0652 ms	$\Delta X=$	-2.4644 ms
X2=	-399.2 μ s	1/ $\Delta X=$	-405.78 Hz



3/24/2023 12:23:58 PM

24-Mar-23
12:24:01

1
1 ms
50 mV

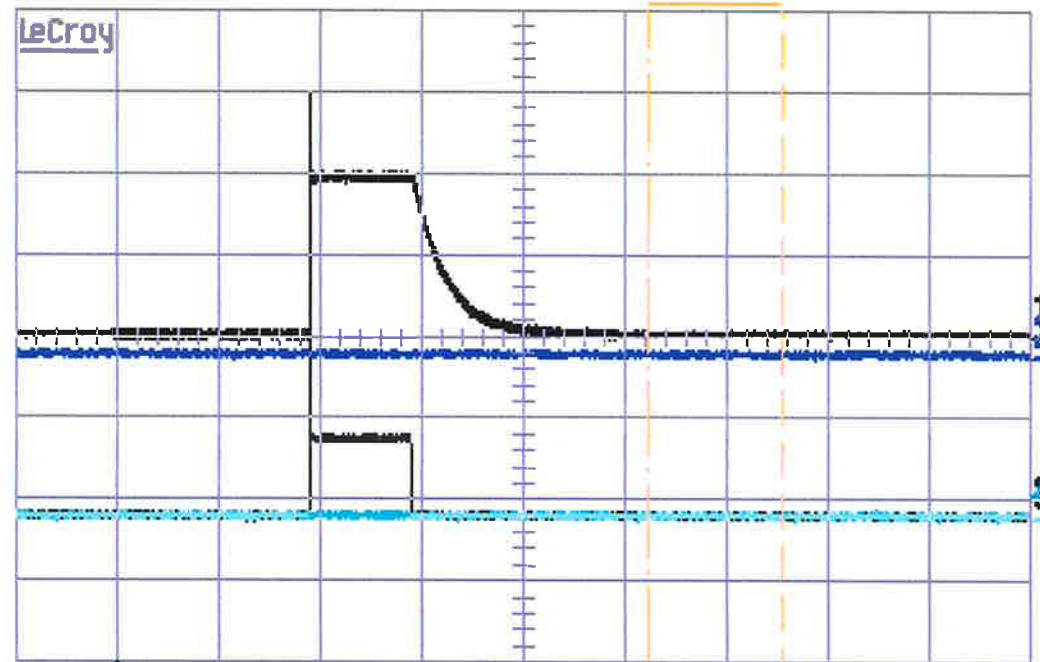
3
1 ms
5.0 V

4
1 ms
200 mV

2
1 ms
2.00 V

1 ms

1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



83 sweeps: average low high sigma

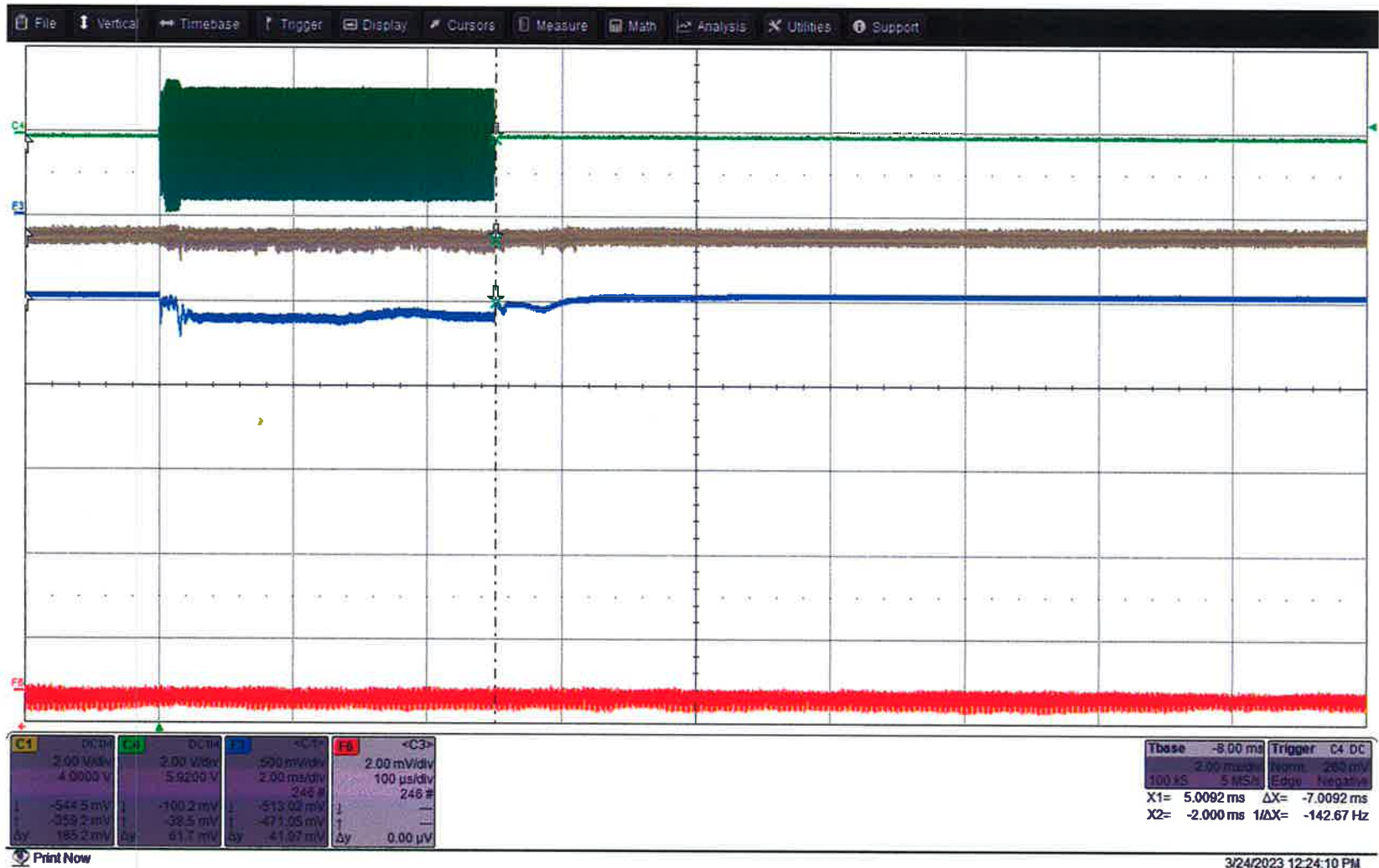
rms(1)	1.13mV	1.07	1.19	0.03
rms(2)	43mV	42	44	0
rms(3)	90mV	88	91	1
rms(4)	4.5mV	4.3	4.7	0.1
phase(1,3)	- - -	- - -	- - -	- - -



Ext10 DC 7.5 kV 50Ω

10 MS/s

☐ NORMAL



24-Mar-23
12:24:16

1
1 ms
0.50 V

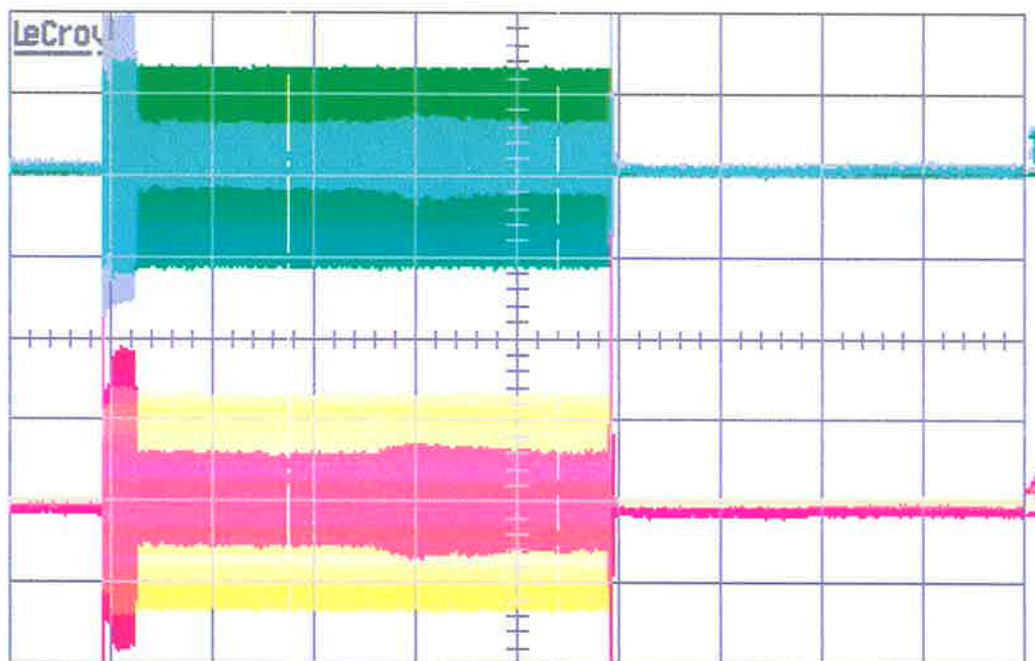
2
1 ms
100 mV

3
1 ms
0.50 V

4
1 ms
100 mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



82 sweeps:

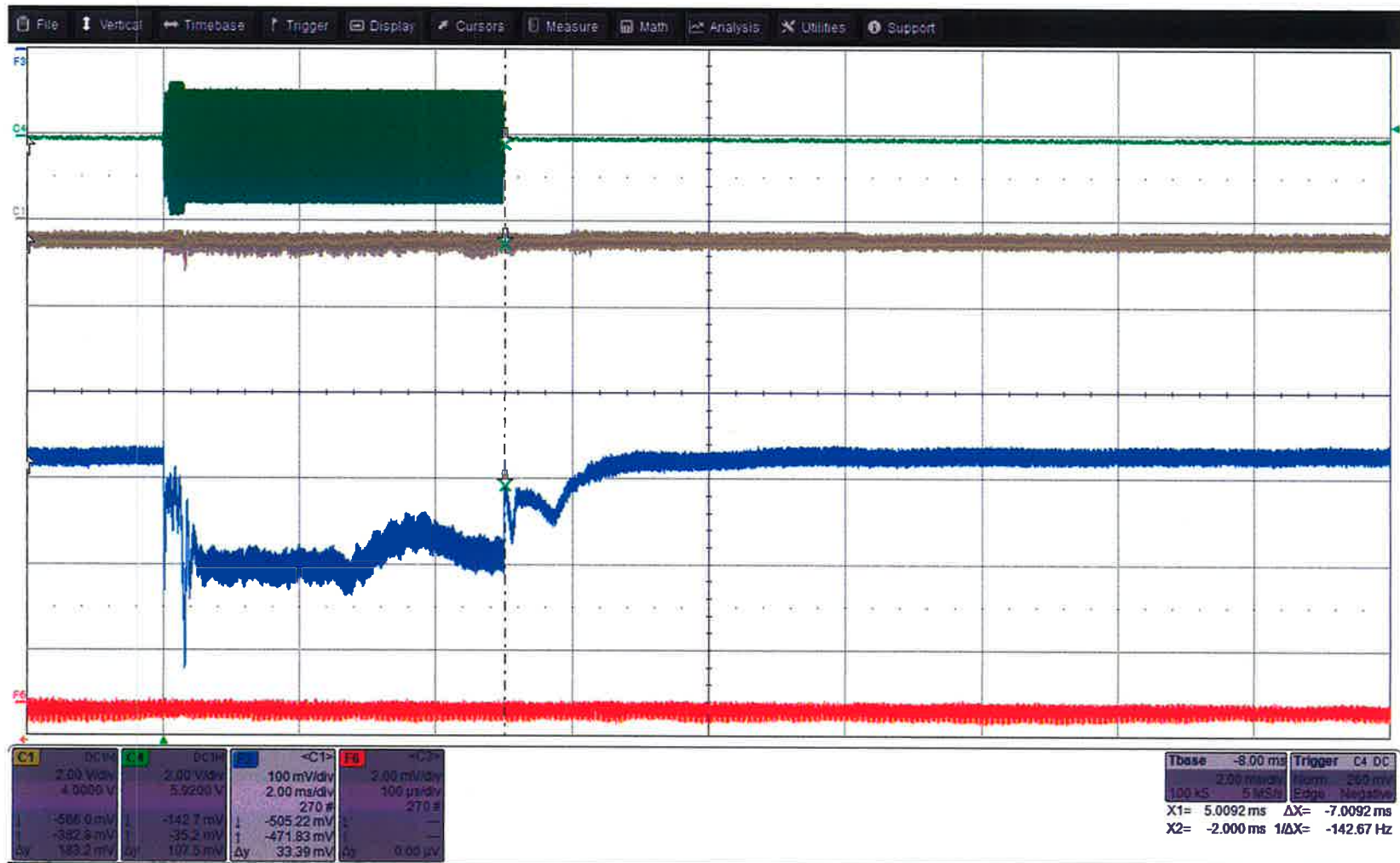
	average	low	high	sigma
rms(1)	422.5mV	420.0	423.8	0.9
rms(2)	30.5mV	29.7	31.1	0.3
rms(3)	448.4mV	446.3	449.7	0.8
rms(4)	39.6mV	38.9	40.1	0.3
amp1(3)	1.260 V	1.247	1.267	0.006



Ext DC 470mV 1MΩ

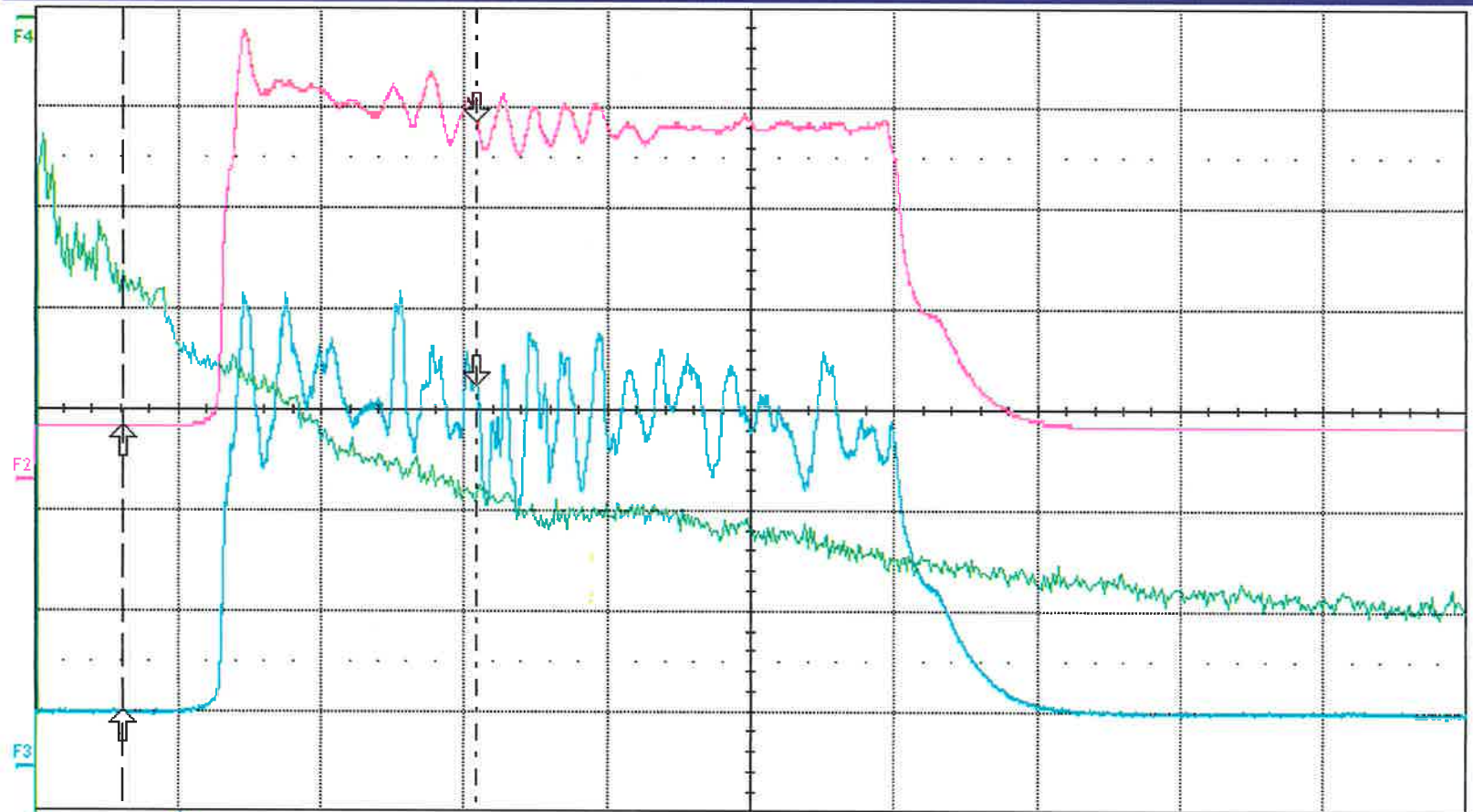
10 MS/s

☐ NORMAL



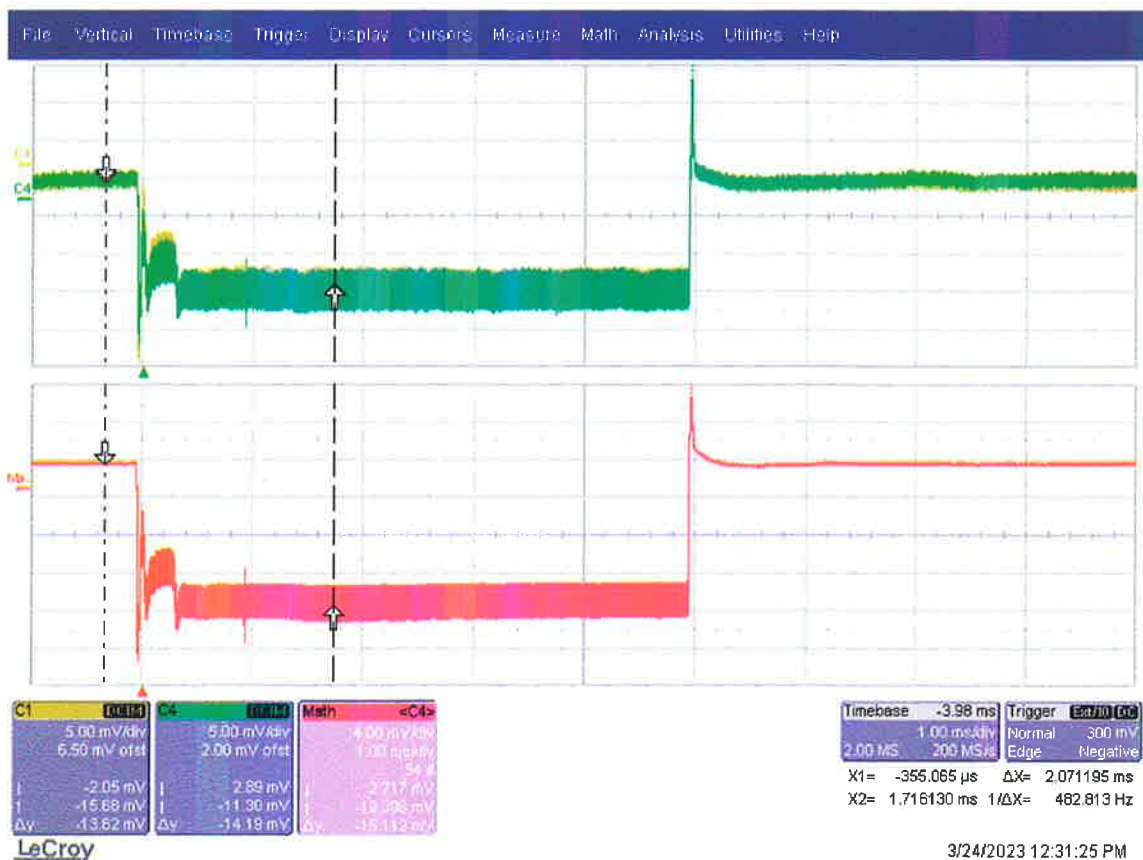
Print Now

3/24/2023 12:24:34 PM



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
54 #			54 #
↓ 7.189590	↓ 7.6360	↓ 7.6360	---
↑ 1.095031	↑ 1.0811	↑ 1.0811	---
Δy -6.094559	Δy -6.5549	Δy -6.5549	---

Tbase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	2.0852 ms	ΔX=	-2.4644 ms
X2=	-399.2 μs	1/ΔX=	-405.78 Hz



3/24/2023 12:31:25 PM

24-Mar-23
12:31:28

1
1 ms
50mV

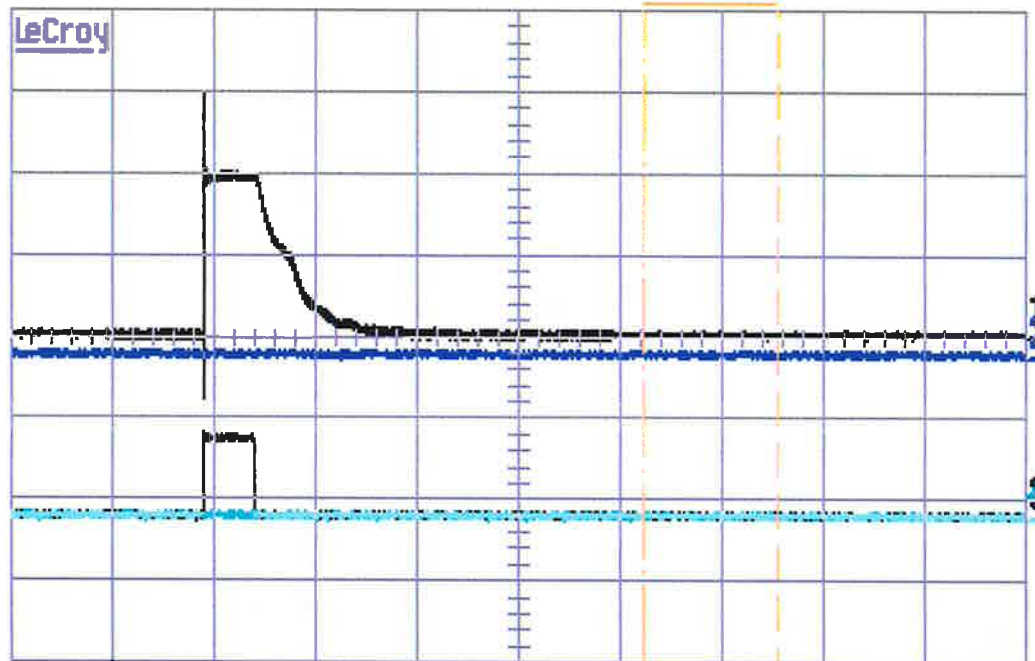
3
1 ms
5.0 V

4
1 ms
200mV

2
1 ms
2.00 V

1 ms

1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



55 sweeps:

	average	low	high	sigma
rms(1)	1.02mV	0.98	1.09	0.03
rms(2)	43mV	42	44	0
rms(3)	90mV	88	92	1
rms(4)	4.4mV	4.3	4.5	0.1
phase(1,3)	- - -	- - -	- - -	- - -



Ext10 DC 7.5 kV 50Ω

10 MS/s

☐ NORMAL

24-Mar-23
12:31:44

1
1 ms
0.50 V

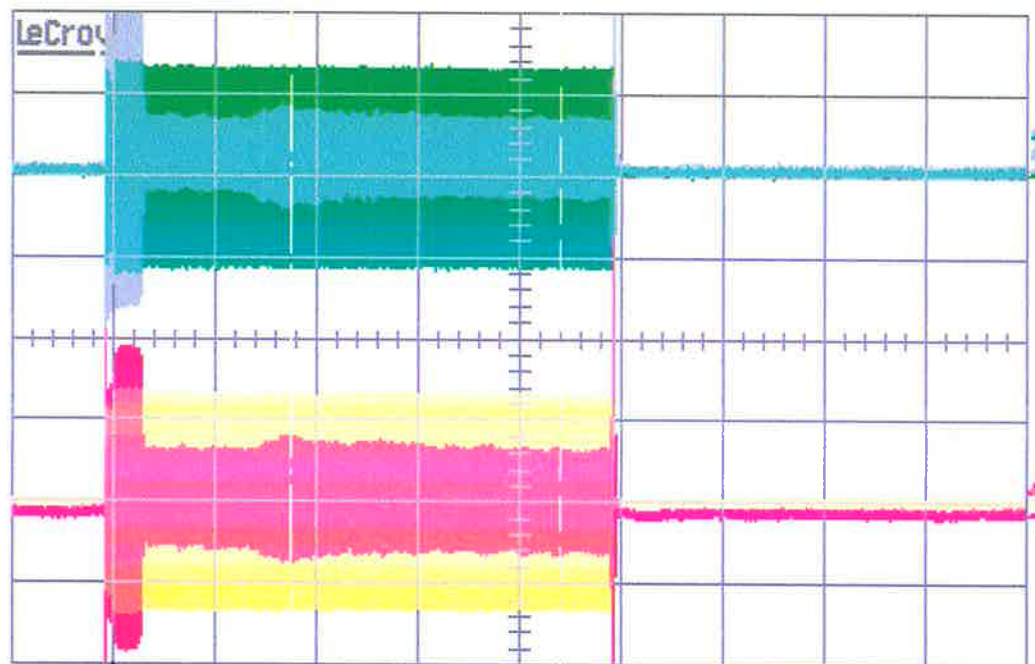
2
1 ms
100mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



54 sweeps: average low high sigma

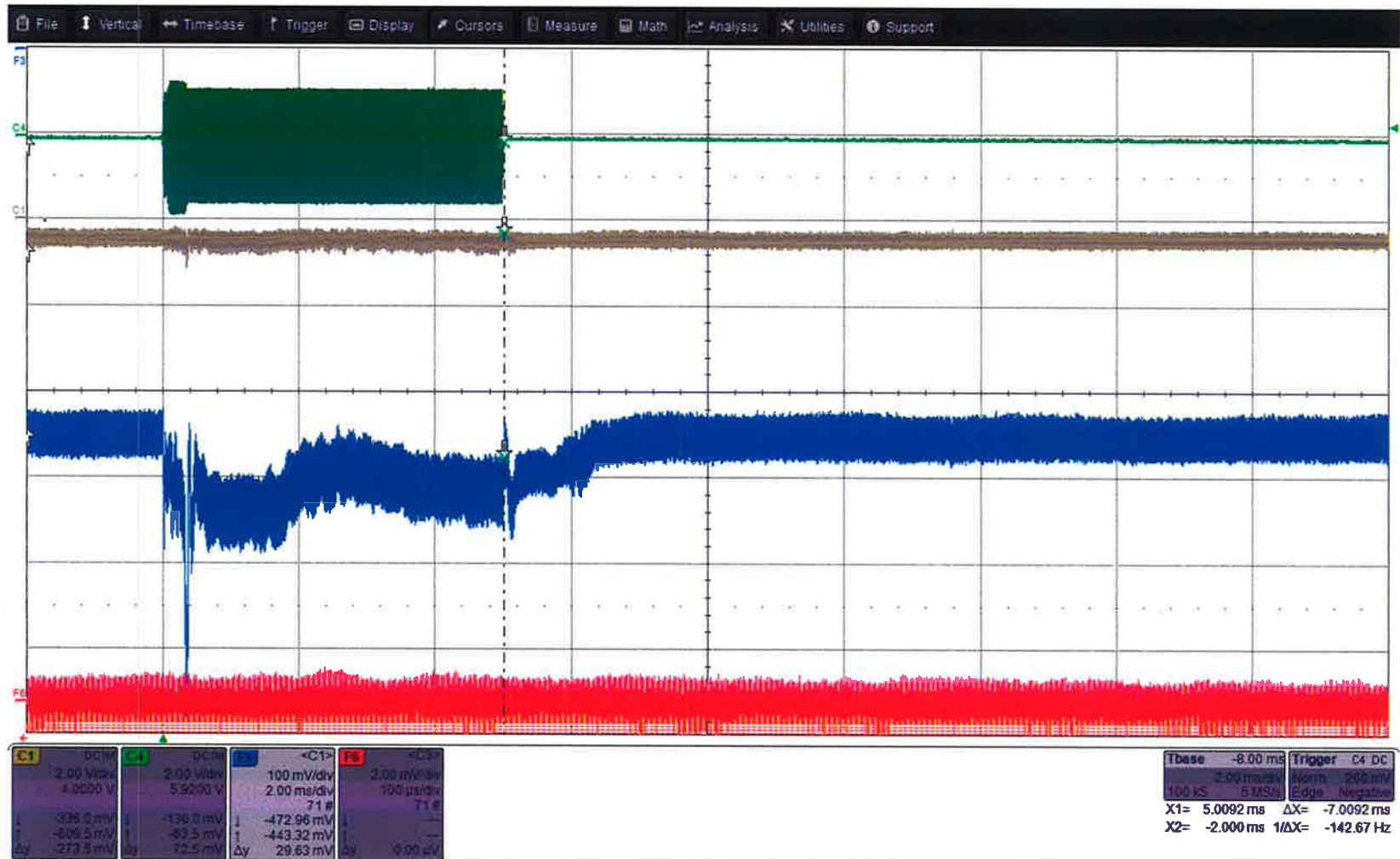
rms(1)	424.0mV	422.7	425.2	0.8
rms(2)	34.5mV	33.9	35.2	0.3
rms(3)	447.9mV	446.7	448.9	0.6
rms(4)	42.4mV	41.8	43.0	0.2
amp1(3)	1.257 V	1.247	1.267	0.006



Ext DC 470mV 1M Ω

10 MS/s

☐ NORMAL



Print Now

3/24/2023 12:31:50 PM

24-Mar-23
12:37:41

1
1 ms
0.50 V

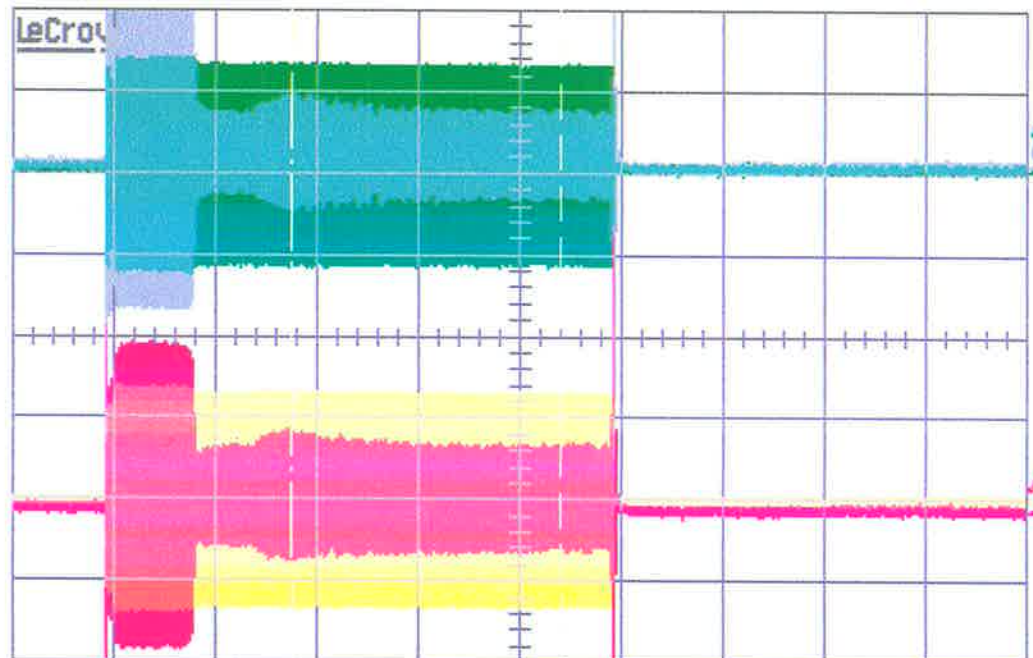
2
1 ms
100mV

3
1 ms
0.50 V

4
1 ms
100mV

1 ms

1 .5 V AC
2 .1 V AC
3 .5 V AC
4 .1 V AC



116 sweeps:

	average	low	high	sigma
rms(1)	425.2mV	422.5	446.6	2.3
rms(2)	38.8mV	36.9	125.0	8.1
rms(3)	447.5mV	445.0	466.3	2.1
rms(4)	44.1mV	43.0	125.0	7.6
ampl(3)	1.254 V	1.239	1.314	0.008



Ext DC 470mV 1MΩ

10 MS/s

☐ NORMAL

24-Mar-23
12:37:32

1
1 ms
50mV

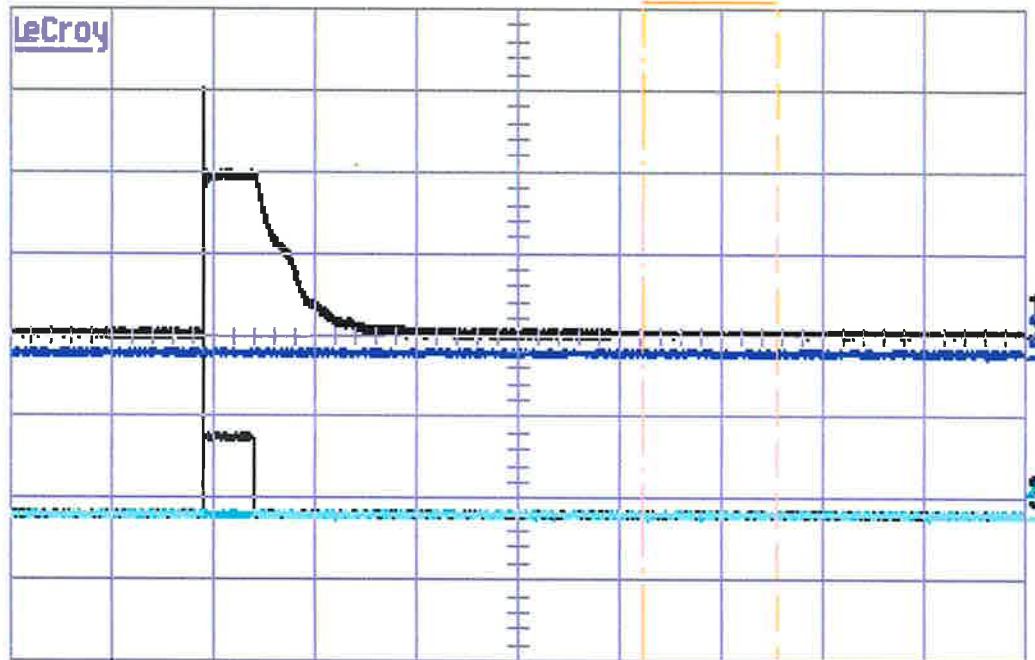
3
1 ms
5.0 V

4
1 ms
200mV

2
1 ms
2.00 V

1 ms

1 50 mV DC
2 2 V DC
3 5 V DC
4 .2 V AC



122 sweeps:

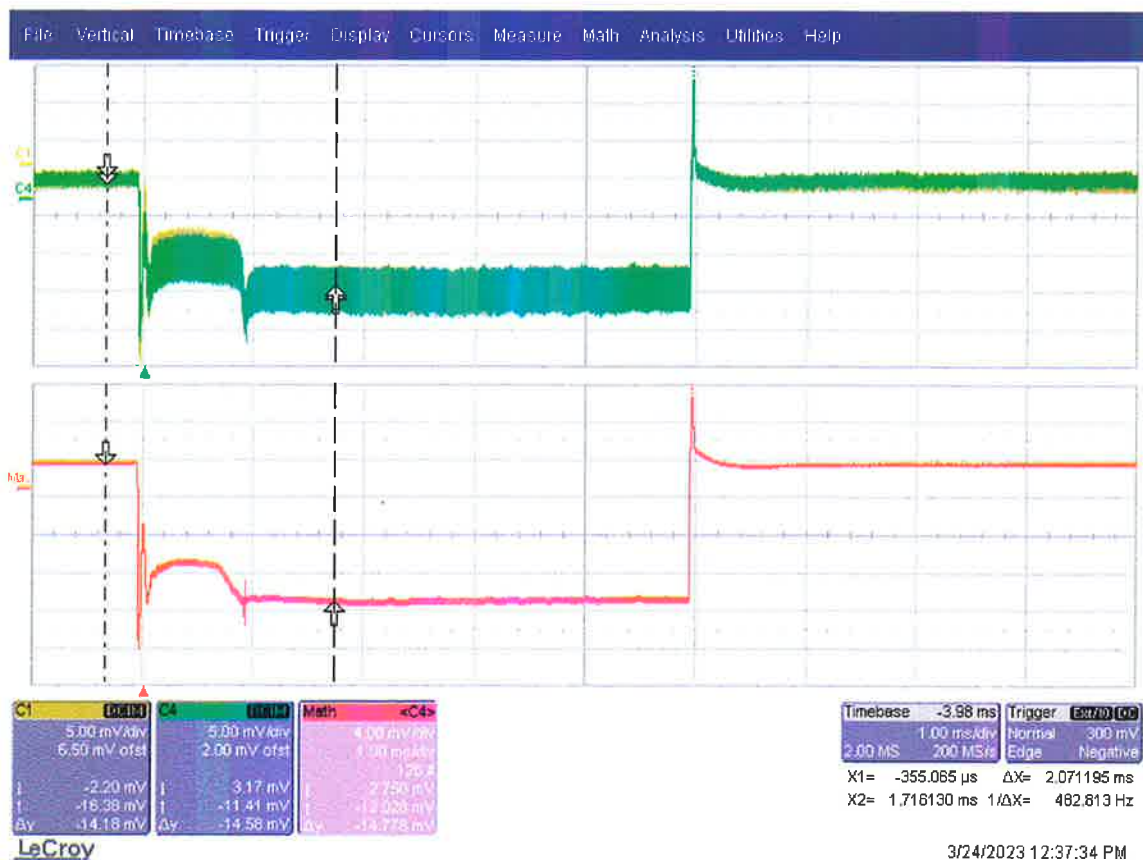
	average	low	high	sigma
rms(1)	0.99mV	0.95	1.02	0.01
rms(2)	43mV	42	44	0
rms(3)	90mV	88	91	1
rms(4)	4.5mV	4.4	4.6	0.0
phase(1,3)	- - -	- - -	- - -	- - -



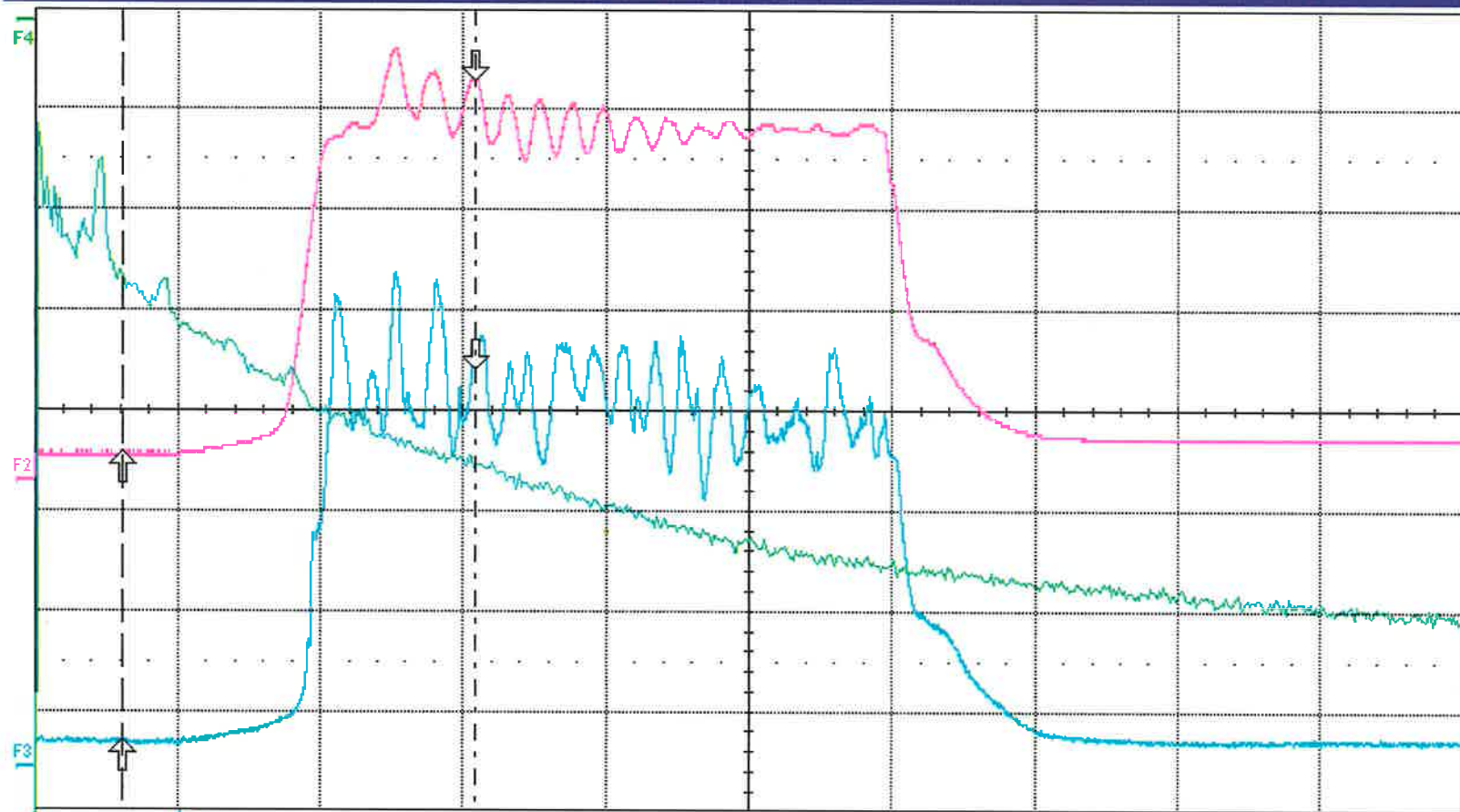
Ext10 DC 7.5 kV 50Ω

10 MS/s

☐ NORMAL

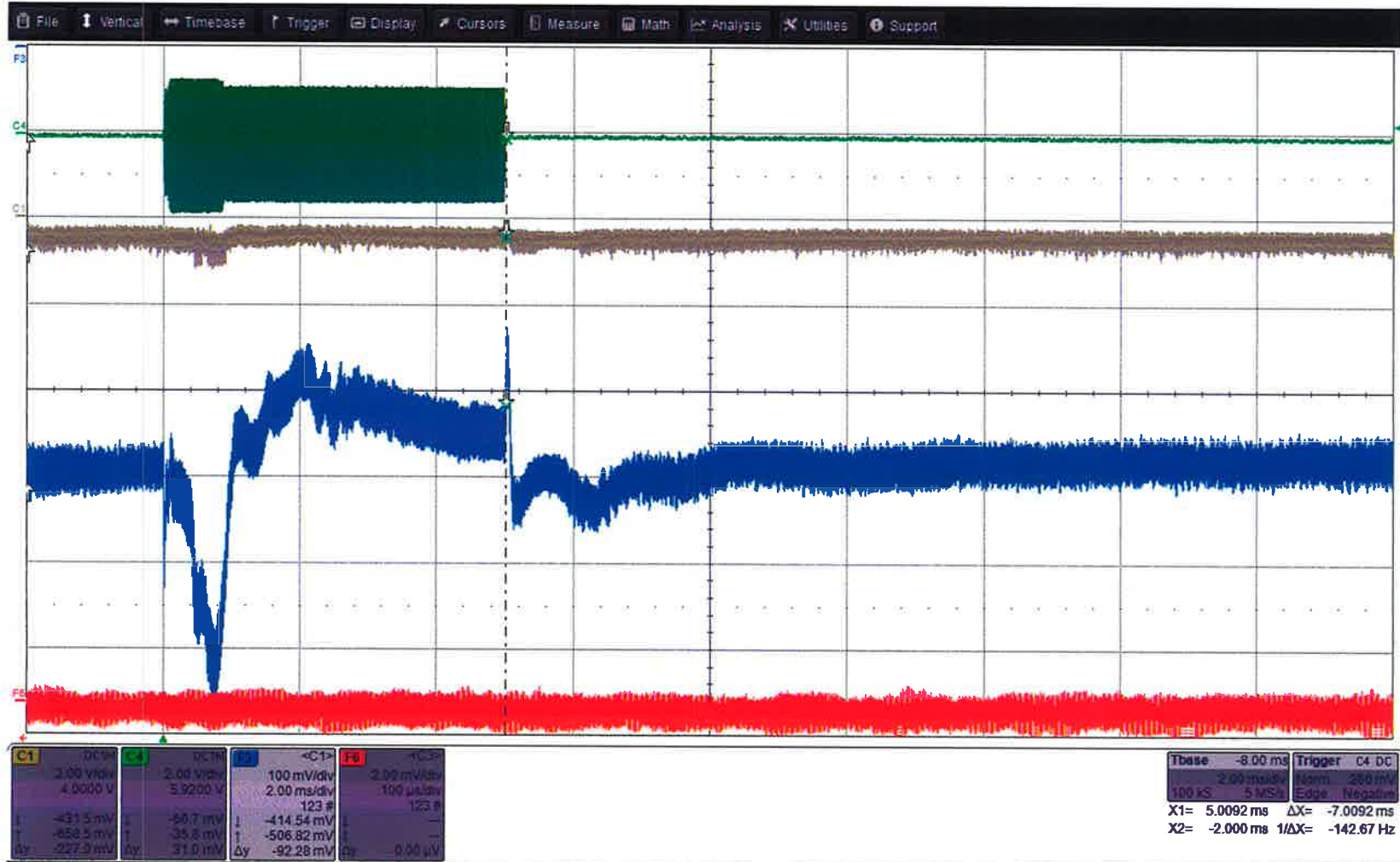


3/24/2023 12:37:34 PM



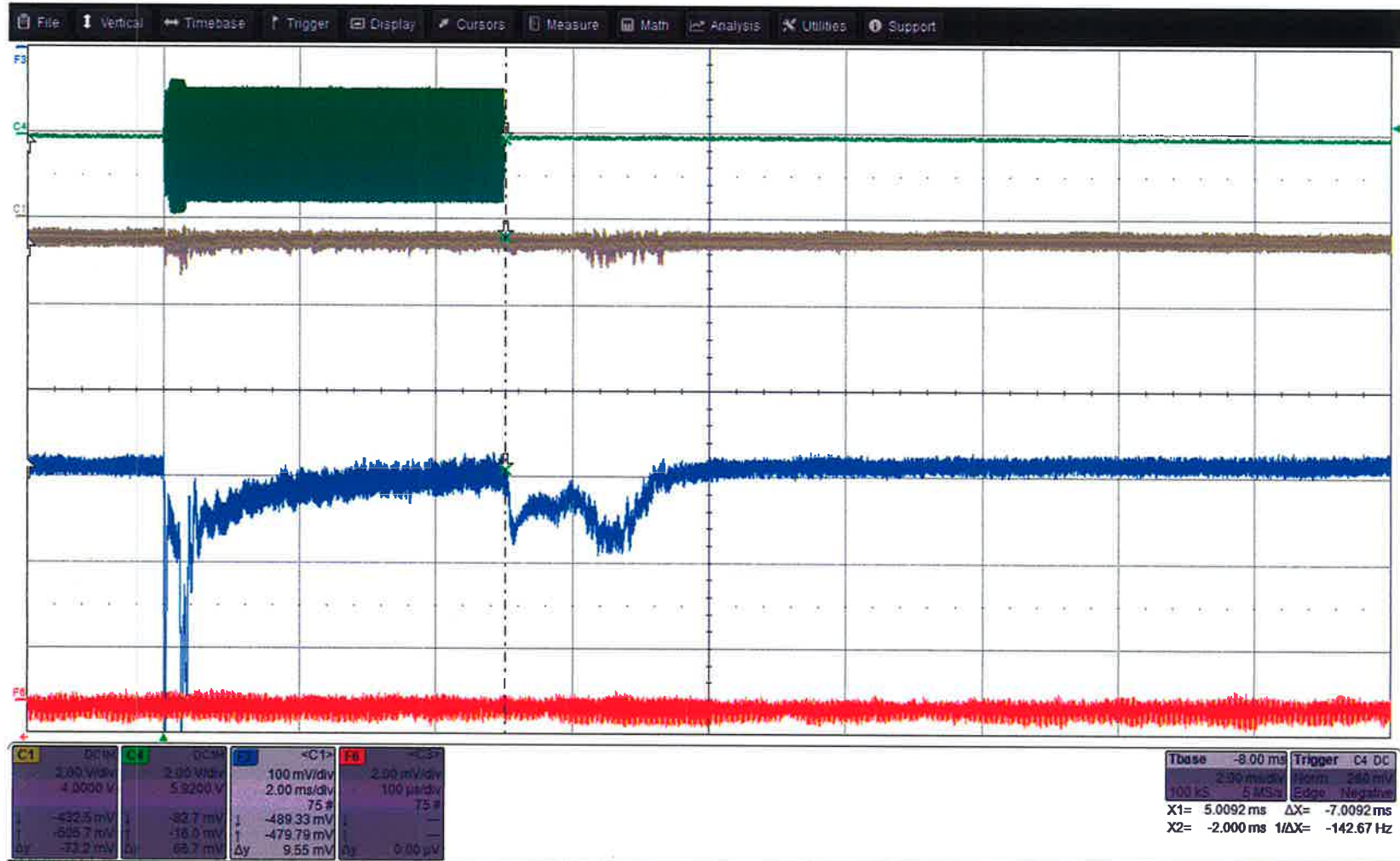
F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
133 #			133 #
↓ 8.035593	↓ 7.9673		
↑ 579.147e-3	↑ 495.5e-3		
Δy -7.456446	Δy -7.4718		

Tbase	-3.98 ms	Trigger	EN10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	2.0652 ms	ΔX=	-2.4644 ms
X2=	-399.2 μs	1/ΔX=	-405.78 Hz



Print Now

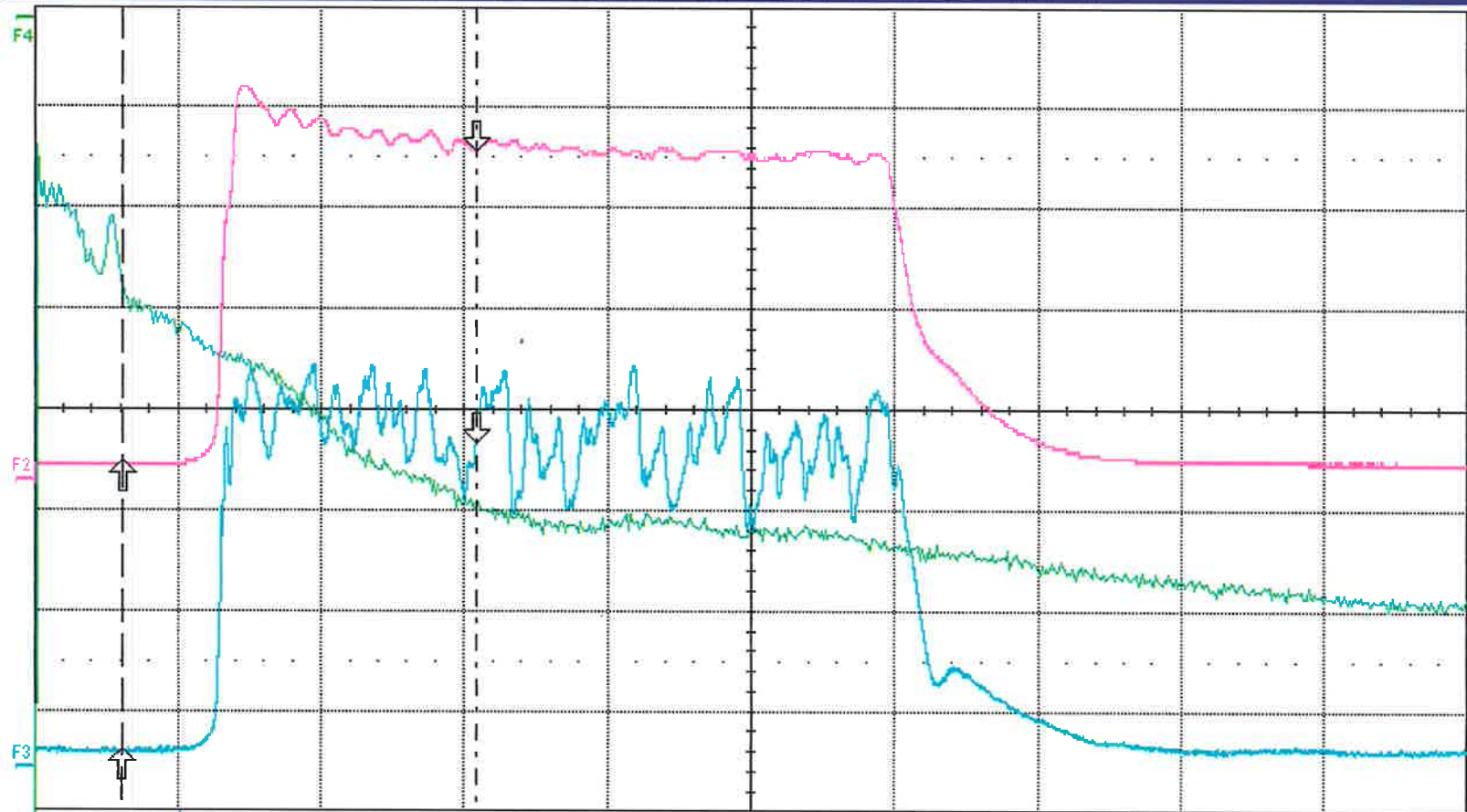
3/24/2023 12:37:42 PM



Print Now

3/24/2023 12:39:53 PM

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help



F2	<F3>	F3 script(C3,C2)	F4 <FFT(C2)>
2.00/div	2.00/div	2.00/div	10.0 dB/div
1.00 ms/div	1.00 ms/div	1.00 ms/div	10.0 kHz/div
105 #	105 #	105 #	105 #
↓ 6.590314	↓ 6.4941	↓ 6.4941	---
↑ 367.502e-3	↑ 309.7e-3	↑ 309.7e-3	---
Δy -6.222811	Δy -6.1844	Δy -6.1844	---

Thase	-3.98 ms	Trigger	Ext/10 DC
	1.00 ms/div	Normal	130 mV
50.0 kS	5.0 MS/s	Edge	Negative
X1=	2.0652 ms	ΔX=	-2.4644 ms
X2=	-399.2 μs	1/ΔX=	-405.78 Hz

LeCroy

3/24/2023 12:40:19 PM